



Press article - New Study - Oil Industry faulting GHG Data - Fw: Climate News Roundup 6-5-12

Margo Eaddy to: Lisa Hanle, Anhar Karimjee, Akachi Imegwu,
Roger Fernandez, Suzanne Waltzer, David Jacobson, Michael Rohwer

06/05/2012 12:50 PM

Cc: Lisa Grogan-McCulloch, Ragan Tate, Paul Gunning, Pamela Franklin, Melissa Weitz

History: This message has been forwarded.

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Tuesday, June 05, 2012

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News

Oil Industry Study Faulting EPA GHG Data May Undermine Drilling Air Rule

Posted: June 4, 2012

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Oil industry groups are touting a new study that finds EPA vastly overestimated emissions of the greenhouse gas (GHG) methane from natural gas production sites, results aimed at undermining the agency's projected benefits from its drilling emissions rules and also bolstering an industry suit over EPA's GHG reporting rule for the sector.

Environmentalists are likely to challenge the estimates, as the differences between EPA's data and the industry study are based on survey findings describing how often hydraulic fracturing wells at drilling operations are re-fractured and estimated amount of wells venting natural gas to the atmosphere, rather than actual monitoring data.

The June 1 report "Characterizing Pivotal Sources of Methane Emissions from Unconventional Natural Gas Production," funded by the American Petroleum Institute (API) and America's Natural Gas Alliance (ANGA), analyzes industry survey data from 20 companies for 2010-2011 in two reporting categories that account for 59 percent of EPA's overall estimates: liquids unloading and the rate at which unconventional gas wells are re-fractured.

"Overall, API/ANGA activity data for these two source categories indicate that EPA estimates of potential emissions from the production sector of 'Natural Gas Systems' would be 50% lower if EPA were to use ANGA/API's larger and more recent survey results," says the report, which the groups discussed on a June 4 call.

The groups are also touting the larger sample size of 91,000 wells, saying it is more robust than the 8,880 wells that EPA assessed to inform its 2010 rule requiring annual GHG reporting from the sector. EPA issued a technical support document alongside the rule estimating that an average of 9,175 thousand cubic feet (MCF) of natural gas and its associated methane, volatile organic compounds and air toxics are emitted during each hydraulic fracturing well completion process. Industry filed suit over the rule, and that lawsuit is currently on hold.

The industry report, crafted by URS Corporation and the LEVON Group, indicates lower average vent times than in EPA's estimates, and a lower percentage of wells that actively vent gas, which the groups say add up to an estimated 637,766 metric tons of methane compared to the agency's estimate of 4,501,465 metric tons.

The industry survey shows a re-fracture rate from 0.7 to 2.3 percent -- far lower than EPA's assumption in the agency estimates of 10 percent rates for re-fracturing. The industry report says the new finding reduces EPA's estimate of methane from re-fracturing from 712,605 to 197,311 metric tons, a 72 percent drop.

"We have better data on the actual activity," an API official said during the June 4 call with reporters. "We're not challenging the emissions factors, we're just saying the overall activity happens less frequently."

The findings could help industry in a future legal challenge or request for administrative reconsideration of EPA's recently released revised emissions rules for oil and gas drilling operations. The rules do not regulate methane or other GHGs directly, but EPA estimates methane reduction benefits from the controls required.

Howard Feldman, API's director of scientific and regulatory affairs, said on the call that the study could be used to challenge the cost-effectiveness of the air rules. "The big picture is it could mean the rule is not as a cost-effective as EPA said," he said, but declined to comment on whether industry will sue over the rules.

Industry groups, including API, have also challenged the estimates in a U.S. Court of Appeals for the District of Columbia Circuit suit, *American Gas Association et al v. EPA*, challenging the agency's GHG reporting rule for the sector. The court granted an EPA motion to hold the case in abeyance March 3, 2011, because the agency was reviewing multiple administrative petitions from the industry groups. In a May 29 status report EPA asks the D.C. Circuit to continue to hold the suit in abeyance, as it is still reviewing the petitions.

EPA Methodology

Industry and Republican lawmakers have widely challenged EPA's data on the grounds that it is based on flawed assumptions about industry practices, such as how much gas is vented to the atmosphere during each fracturing operation. For example, the U.S. Chamber of Commerce late last year petitioned EPA to adjust its estimates, saying that the calculations violate Data Quality Act guidelines, and House oversight committee Chairman Darrell Issa (R-CA) launched an investigation into the agency's methodology for developing the estimates.

Environmental groups and some researchers have used the agency's emissions data to challenge the industry claim that overall carbon footprint of gas-fired electricity generation is less than coal generation, including a high-profile 2011 study by Cornell researcher Robert Howarth that relied on the EPA estimate.

And Environmental Defense Fund used the estimates in a February study, "Greater Focus Needed On Methane Leakage From Natural Gas Infrastructure" to highlight the overall need for better data to make a fair comparison between the carbon footprint of natural gas compared to coal.

During the June 4 call, API and ANGA officials urged the adoption of the new estimates in any forthcoming lifecycle analyses of the GHG footprint of the industry sector. API's Feldman said the survey should be considered "the best and most comprehensive data so far," saying that it covered 10 times as many wells as EPA's estimates.

"Our first concern was that EPA revised its GHG inventory [earlier this year] and its data was not robust," Sara Banaszak, ANGA chief economist and vice president said during the call. But a second concern with EPA's data remains its use in studies aimed at challenging the carbon footprint of the energy production sector, Banaszak added. "We hope they'll go back and take a close look at this report," she said. -- *Bridget DiCosmo* (bdicosmo@iwpnews.com This e-mail address is being protected from spambots. You need JavaScript enabled to view it)

Related News: [Climate Change](#) [Natural Gas](#)

Margo Eaddy

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----- Forwarded by Margo Eaddy/DC/USEPA/US on 06/05/2012 12:50 PM -----

From: Karen Dante/DC/USEPA/US
To:
Date: 06/05/2012 10:37 AM
Subject: Climate News Roundup 6-5-12



Climate news round-up

a daily update on climate change for EPA staff

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World Environment Day: warm gas may rise 300% in 4 decades (Times of India)

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<http://www.eenews.net/climatewire/2012/06/05/3>

World Bank unveils 10 year environmental strategy (E&E News)

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EPA allows some states to use emissions trading in cross – state rule to reduce haze (BNA)

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(Huffington Post)

http://www.huffingtonpost.com/mary-ellen-harte/climate-change-this-week-7_b_1567437.html?ref=climate-change

Emissions fell under cap and trade program, report says (New York Times)

<http://green.blogs.nytimes.com/2012/06/04/emissions-fell-under-cap-and-trade-program-report-says/>

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Science

-see monthly science roundup at the end of each month



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Karen Dante
ORISE Fellow
Climate Change Division
Communications Team
202-343-9987
dante.karen@epa.gov

Fw: updated technical review memo
Melissa Weitz to: Isabel DeLuca

06/05/2012 02:09 PM

I sent this to Bill and Suzie for review, but wanted to send it to you at this point in draft form so you can get a sense of the kind of technical issues in the API/ANGA reports.

----- Forwarded by Melissa Weitz/DC/USEPA/US on 06/05/2012 02:08 PM -----

From: Melissa Weitz/DC/USEPA/US
To: Bill Irving/DC/USEPA/US@EPA, Suzanne Waltzer/DC/USEPA/US@EPA
Date: 06/05/2012 02:03 PM
Subject: updated technical review memo

I cleaned it up a bit and included a section on what I saw as the key misinterpretations/misrepresentations (pasted below also).

Let me know if you have edits or I should send it on to others at this point.

(b)(5) Deliberative

ANGA.API report.docx

Key Misinterpretations/misrepresentations

- (b)(5) Deliberative
-
-
-
-
-
-



[Hide Details](#)

Liquid unloading Touch Base

Wed 06/06/2012 10:00 AM - 11:00

AM

Attendance is **required** for Melissa Weitz

Chair: **Suzanne Waltzer/DC/USEPA/US**

No Location Information



This entry has an alarm. The alarm will go off 30 minutes before the entry starts.

Required: DRobinson@icfi.com, eStricklin@icfi.com, MCacho@icfi.com, Melissa Weitz/DC/USEPA/US@EPA

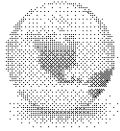
Description

(b) (6) Privacy

Eric and Mariella, this time works for Don and I. Does it work for you? if it is possible to send the updated spreadsheet out in advance of the call, that would be great.

Melissa, FYI - we can use this time to ask all of our technical questions on LU as well.

Personal Notes



Presentation from Rob Sutton explaining 90% of wells require liquids unloading from ALRDC

Stricklin, Eric to: Cacho, Mariella, Suzanne Waltzer, Melissa Weitz, Alex Macpherson, Bruce Moore

06/06/2012 10:24 AM

History:

This message has been forwarded.

Eric Stricklin | Analyst | 703.218.2505 | estricklin@icfi.com
ICF INTERNATIONAL | 9300 Lee Highway, Fairfax VA 22031 | www.icfi.com



US Gas Production Overview (ALRDC).ppt



Re: Talking points on API/ANGA for your review
Bill Irving to: Melissa Weitz

06/06/2012 05:49 PM

History:

This message has been replied to and forwarded.

Some minor comments. In case you're on your BB and can't see the strike-through, if it's in bold, it should be deleted. If it's in CAPS, it should be added.

Melissa Weitz

(b)(5) deliberative

06/06/2012 02:44:06 PM

From: Melissa Weitz/DC/USEPA/US
To: Bill Irving/DC/USEPA/US@EPA
Date: 06/06/2012 02:44 PM
Subject: Talking points on API/ANGA for your review

• **(b)(5) Deliberative**

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• **(b)(5) Deliberative**

----- Forwarded by Melissa Weitz/DC/USEPA/US on 06/06/2012 02:35 PM -----

From: Isabel DeLuca/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Cc: Erin Birgfeld/DC/USEPA/US@EPA
Date: 06/05/2012 03:36 PM
Subject: Re: Fw: updated technical review memo

Thanks, Melissa. Here are some broad messages I'm pulling from your write-up--not sure it I've hit all the right points (and I'm sure you and Bill will be able to say this better...). When you have drafted TPs for the EPW hearing, we should keep OAR comm in the loop during review.

• **(b)(5) Deliberative**

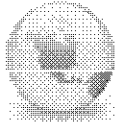
• (b)(5) Deliberative

Isabel DeLuca
Climate Change Division
USEPA
202-343-9247 (phone)
202-343-2290 (fax)

Melissa Weitz

I sent this to Bill and Suzie for review, but wa...

06/05/2012 02:09:20 PM



RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Minnucci, Chris A. to: Melissa Weitz

06/13/2012 10:37 AM

Cc: "Beddingfield, Erin N.", "Kidman, Timothy M."

History:

This message has been forwarded.

Melissa,

This should be no problem, we'll check that the bullet points listed below are ok and get back to you by tomorrow AM at the latest to let you know.

talk to you at 2,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]

Sent: Wed 6/13/2012 10:06 AM

To: Minnucci, Chris A.

Cc: Beddingfield, Erin N.; Kidman, Timothy M.

Subject: quick task for SAIC Re: Conference Call 2 PM eastern time

Hello,

API/ANGA recently released a report about national methane emissions from natural gas production. I've reviewed the report and cross-checked with EPA's inventory. I developed the summary attached to this email, and also the higher-level bullet points below.

Could SAIC take a quick look at the study and confirm that the bullet points below are accurate? I may ask for a more detailed review of the attached sheet later. It would be really useful to get the review of the bullet points by tomorrow AM. I think it is pretty straightforward and that the bullets are accurate, but no one else has looked in detail at the study and I just wanted to double check my work.

We can discuss at 2.

Thanks!
Melissa

- For many key data points in this study, API/ANGA's estimates are based on, or in line with, EPA estimates.

- For emissions from hydraulically fractured well completions and recompletions, and

many other sources, API/ANGA uses EPA's emissions factors.

- The main difference between EPA's and API/ANGA's emissions totals was the data for emissions-reducing technologies for liquids unloading.

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(See attached file: ANGA.API report.docx)

"Minnucci, Chris A." ---06/12/2012 04:53:37 PM---All,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/12/2012 04:53 PM
Subject: Conference Call 2 PM eastern time

All,

I've scheduled the inventory conference call for 2 to 3 PM Wednesday, June 13. Please use (b) (6) Privacy conference code (b) (6) Privacy

talk to you tomorrow,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 4:15 PM

To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm available after 2 tomorrow and after 3 on Thursday. Will either day work for you/Tim?

Melissa

"Minnucci, Chris A." ---06/12/2012 03:41:10 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 03:41 PM
Subject: RE: TO 07

Melissa,

Is noontime tomorrow ok for you? I have some constraints in the afternoon, and want to be able to include Tim Kidman (on the west coast) on the call.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 2:56 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Let's have a call. It is probably not necessary to look at GRI for the level of detail we're looking for here.

Do you have time tomorrow to talk?

Melissa

"Minnucci, Chris A." ---06/12/2012 11:43:29 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 11:43 AM
Subject: RE: TO 07

Melissa,

Tim, Erin and I have finished our review of the inventory, and at this point we have a question on what the best procedure would be from here. It is our understanding that many of the emission factors, and maybe some of the activity data, in the inventory are based on the 1996 GRI data source. Assuming this is true (please let me know if it isn't), then most of our questions are on the GRI data. This being the case, we were wondering whether it would be better to (1) have the conference call and ask our GRI data questions during the call, or (2) do our own review of the GRI data source to get answers to these questions. If the latter option makes more sense from EPA's standpoint, rather than all 3 of us doing the review I would have Tim do it (because he actually has had some experience looking at that document in his past job). Erin and I would give him our questions up front so he can focus on getting answers to those questions. I understand it is a big document so don't want to have 3 people doing independent reviews when one of us can get the necessary answers more cost effectively.

Please let me know whether it would be best to proceed with a GRI review or directly to a call where an EPA person could address our GRI questions. Also if the latter, please let me know what would be some good times for you.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 4:57 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm going to suggest that we keep the inventory and the memo call separate--I think you're going to have a lot of questions about the inventory when you start looking at it...I know I did!

The Subpart W piece is going to be key (and also a bit urgent), so it would be good to bring in from the start someone who worked on the W reporting requirements and get them familiar with the inventory.

The calculation spreadsheet for the GHG Inventory is attached below. Please go ahead and get started on step 1.

Let me know if you have questions. We may want to do more than one call on questions on the inventory, in case any big questions hold up your review.

(See attached file: NaturalGasSystems_1990-2010
30Mar2012.xlsx)

"Minnucci, Chris A." ---06/07/2012 04:50:03 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>

To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 04:50 PM
Subject: RE: TO 07

Melissa,

Here's my estimate of hours and costs. We are planning to go mainly with Tim Kidman and myself to do the work, but we will be calling on 2 of the other folks from the Subpart W team--Erin Beddingfield and Matt Cleaver--on an as needed basis when we have questions about specific sources that they worked on during our Subpart W review. Note that in this estimate I suggest

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Totals: **(b)(5) deliberative**

We will await your ok on this before proceeding with the work, or if you need more info or want to discuss this estimate further just let me know; I can be reached at 610-296-2028. I'll be here tomorrow morning but out in the afternoon--back in Monday AM.

Also, as it will come up quickly in Step 2, if you could send us the memo when you get the chance that would be great.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 12:51 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Not sure yet of the schedule, but it will likely be pretty quick. We're

(b)(5) deliberative

possible to have the rest ready in some form by mid-July, that'd be great. But, I'll get back to you with more specifics on the schedule once we have a better sense of the timing on our plan to engage stakeholders on the inventory.

Melissa

"Minnucci, Chris A." ---06/07/2012 11:52:24 AM---Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. T

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 11:52 AM
Subject: RE: TO 07

Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. Then if you approve the estimate, we can get started immediately. Do you have a schedule for when this work should be completed?

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 10:27 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Thanks! The TD is drafted below. The workplan may change a bit as we move forward, but we'd like to get started as soon as possible on Step 1.

Would it be possible to get an estimate of hours/cost tomorrow?

We can set up a time to talk if you have questions.

Thanks!
Melissa

(b)(5) Deliberative



(b)(5) Deliberative

(b)(5) Deliberative

(b)(5) Deliberative

Melissa M. Weitz
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Climate Change Division
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Weitz.Melissa@epa.gov

"Minnucci, Chris A." ---06/04/2012 09:52:51 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/04/2012 09:52 AM
Subject: RE: TO 07

Melissa,

One other important thing I forgot-- **(b)(5) deliberative**

(b)(5) deliberative

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Mon 6/4/2012 9:31 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

This is great, thanks Chris!

I'll get back to you in the next day or two. Thanks so much.

Melissa

"Minnucci, Chris A." ---06/02/2012 04:31:14 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/02/2012 04:31 PM
Subject: RE: TO 07

Melissa,

Yes, we have folks who are knowledgeable on that subject, having

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Team before looking further afield. Just let me know when you'd like to talk (or send me further details), and I'll work on finding the right people for the job.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 5/31/2012 5:25 PM
To: Minnucci, Chris A.
Subject: TO 07

Hi Chris,

Quick question--is there anyone at SAIC with expertise on oil and gas GHG emissions estimates who we could access under TO 07? Please think about it and let me know, and I'll get in touch soon with more details.

Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897

Weitz.Melissa@epa.gov [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US]



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Weitz/DC/USEPA/US] API_ANGA report review.docx



Fw: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Melissa Weitz to: Suzanne Waltzer

06/13/2012 10:25 PM

Melissa M. Weitz
U.S. Environmental Protection Agency
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(202) 343-9897
Weitz.Melissa@epa.gov

-----Forwarded by Melissa Weitz/DC/USEPA/US on 06/13/2012
10:25PM -----

To: Melissa Weitz/DC/USEPA/US@EPA, "Minnucci, Chris A."
<CHRIS.A.MINNUCCI@saic.com>

From: "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>

Date: 06/13/2012 10:20PM

Cc: "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>

Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern
time

(See attached file: API_ANGA report review.docx)

Hi Melissa,

I've taken a look at the report and your bullet points and put together a
few comments in the attached document. The first comment relates to

(b)(5) Deliberative

In general, I also agree that (b)(5) Deliberative

(b)(5) Deliberative

I hope this is helpful. Please let me know if you would like me to review your overall summary as well.

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Wednesday, June 13, 2012 7:07 AM
To: Minnucci, Chris A.
Cc: Beddingfield, Erin N.; Kidman, Timothy M.
Subject: quick task for SAIC Re: Conference Call 2 PM eastern time

Hello,

API/ANGA recently released a report about national methane emissions from natural gas production. I've reviewed the report and cross-checked with EPA's inventory. I developed the summary attached to this email, and also the higher-level bullet points below.

Could SAIC take a quick look at the study and confirm that the bullet points below are accurate? I may ask for a more detailed review of the attached sheet later. It would be really useful to get the review of the bullet points by tomorrow AM. I think it is pretty straightforward and that the bullets are accurate, but no one else has looked in detail at the study and I just wanted to double check my work.

We can discuss at 2.

Thanks!
Melissa

- For many key data points in this study, API/ANGA's estimates are based on, or in line with, EPA estimates.

- For emissions from hydraulically fractured well completions and recompletions, and many other sources, API/ANGA uses EPA's emissions factors.
- The main difference between EPA's and API/ANGA's emissions totals was the data for emissions-reducing technologies for liquids unloading.

(b)(5) Deliberative



(See attached file: ANGA.API report.docx)

Re: "Minnucci, Chris A." ---06/12/2012 04:53:37 PM---All,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/12/2012 04:53 PM
Subject: Conference Call 2 PM eastern time

All,

I've scheduled the inventory conference call for 2 to 3 PM Wednesday,

June 13. Please use (b) (6) Privacy conference code (b) (6) Privacy

talk to you tomorrow,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 4:15 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm available after 2 tomorrow and after 3 on Thursday. Will either day work for you/Tim?

Melissa

"Minnucci, Chris A." ---06/12/2012 03:41:10 PM---Melissa,

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Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 2:56 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Let's have a call. It is probably not necessary to look at GRI for the level of detail we're looking for here.

Do you have time tomorrow to talk?

Melissa

"Minnucci, Chris A." ---06/12/2012 11:43:29 AM---Melissa,

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To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 11:43 AM
Subject: RE: TO 07

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Please let me know whether it would be best to proceed with a GRI review or directly to a call where an EPA person could address our GRI questions. Also if the latter, please let me know what would be some good times for you.

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From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
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To: Minnucci, Chris A.
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The calculation spreadsheet for the GHG Inventory is attached below.

Please go ahead and get started on step 1.

Let me know if you have questions. We may want to do more than one call on questions on the inventory, in case any big questions hold up your review.

(See attached file: NaturalGasSystems_1990-2010 30Mar2012.xlsx)

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(b)(5) deliberative

(b)(5) deliberative

Totals: **(b)(5) deliberative**

We will await your ok on this before proceeding with the work, or if you need more info or want to discuss this estimate further just let me know; I can be reached at 610-296-2028. I'll be here tomorrow morning but out in the afternoon--back in Monday AM.

Also, as it will come up quickly in Step 2, if you could send us the memo when you get the chance that would be great.

thanks,
Chris

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To: Minnucci, Chris A.
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Would it be possible to get an estimate of hours/cost tomorrow?

We can set up a time to talk if you have questions.

Thanks!
Melissa

TD for SAIC under TO 7

(b)(5) Deliberative



(b)(5) Deliberative

(b)(5) Deliberative



(b)(5) Deliberative

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division

(202) 343-9897
Weitz.Melissa@epa.gov

"Minnucci, Chris A." ---06/04/2012 09:52:51 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/04/2012 09:52 AM
Subject: RE: TO 07

Melissa,

One other important thing I forgot-- (b)(5) deliberative

(b)(5) deliberative

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Mon 6/4/2012 9:31 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

This is great, thanks Chris!

I'll get back to you in the next day or two. Thanks so much.

Melissa

"Minnucci, Chris A." ---06/02/2012 04:31:14 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/02/2012 04:31 PM
Subject: RE: TO 07

Melissa,

Yes, we have folks who are knowledgeable on that subject, having

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Team before looking further afield. Just let me know when you'd like to talk (or send me further details), and I'll work on finding the right people for the job.

Chris

From: Melissa Weitz [<mailto:Weitz.Melissa@epamail.epa.gov>]
Sent: Thu 5/31/2012 5:25 PM
To: Minnucci, Chris A.
Subject: TO 07

Hi Chris,

Quick question--is there anyone at SAIC with expertise on oil and gas GHG emissions estimates who we could access under TO 07? Please think about it and let me know, and I'll get in touch soon with more details.

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(b)(5) Deliberative

Weitz/DC/USEPA/US] API_ANGA report review.docx



Re: Revised one pager for Gina 
Jonathan Lubetsky to: Melissa Weitz, Suzanne Kocchi
Cc: Suzanne Waltzer

06/14/2012 06:32 PM

History: This message has been forwarded.

That is exactly what I thought. Thank you!
Melissa Weitz

----- Original Message -----

From: Melissa Weitz
Sent: 06/14/2012 05:51 PM EDT
To: Suzanne Kocchi
Cc: Suzanne Waltzer; Jonathan Lubetsky
Subject: Re: Revised one pager for Gina

It's a new one pager that they want-- (b)(5) deliberative
(b)(5) deliberative

(b)(5) deliberative

(b)(5) deliberative

I'm cc:ing Jonathan to make sure I'm understanding this correctly.

At any rate, I'm working on this list/summary now and will probably want to send around OAP before sending it to Jonathan.

Suzanne Kocchi

(b)(5) deliberative

06/14/2012 05:44:47 PM

From: Suzanne Kocchi/DC/USEPA/US
To: "Melissa Weitz" <Weitz.Melissa@epamail.epa.gov>
Cc: "Suzanne Waltzer" <Waltzer.Suzanne@epamail.epa.gov>
Date: 06/14/2012 05:44 PM
Subject: Revised one pager for Gina

(b)(5) deliberative

Can you pls cc me when you send to Jonathan?

Thx



RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Kidman, Timothy M. to: Melissa Weitz

06/14/2012 08:20 PM

Cc: "Minnucci, Chris A.", "Beddingfield, Erin N."

History:

This message has been replied to and forwarded.

Melissa, sure.

(b)(5) deliberative

(b)(5) deliberative

When do you

need these items?

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

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From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]

Sent: Thursday, June 14, 2012 4:34 PM

To: Kidman, Timothy M.

Cc: Minnucci, Chris A.; Beddingfield, Erin N.

Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

This was really useful Tim, thank you.

Would you be able to look at the liquids unloading estimates
in more detail?

(b)(5) deliberative

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If I could get a quick review of the summary information I
developed, that'd be great. It doesn't have to be detailed.

Thanks!

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wrote: -----

To: Melissa Weitz/DC/USEPA/US@EPA, "Minnucci, Chris A."

<CHRIS.A.MINNUCCI@saic.com>

From: "Kidman, Timothy M."

<TIMOTHY.M.KIDMAN@saic.com>

Date: 06/13/2012 10:20PM

Cc: "Beddingfield, Erin N."

<ERIN.N.BEDDINGFIELD@saic.com>

Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Hi Melissa,

I've taken a look at the report and your bullet points and put together a few comments in the attached document. The first comment relates to

(b)(5) Deliberative

(b)(5) Deliberative

I hope this is helpful. Please let me know if you would like me to review your overall summary as well.

Tim

Tim Kidman | SAIC

Climate Change Analyst

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office: 626.440.8342 | mobile: 626.993.8872

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TD for SAIC under TO 7

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[attachment "API_ANGA report review.docx" removed by
Melissa Weitz/DC/USEPA/US]

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RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Melissa Weitz to: Kidman, Timothy M.

06/14/2012 08:38 PM

Cc: "Minnucci, Chris A.", "Beddingfield, Erin N."

Generally, by Wednesday afternoon would be good.

But, if you see any glaring errors in my summary, it'd be great to know about them by Monday afternoon. Also, it'd be great to get an

(b)(5) deliberative

Thanks!
Melissa

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com> wrote:

To: Melissa Weitz/DC/USEPA/US@EPA

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Date: 06/14/2012 08:20PM

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Melissa, sure. **(b)(5) deliberative**

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Tim

Tim Kidman | SAIC

Climate Change Analyst

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eastern time

Hi Melissa,

I've taken a look at the report and your bullet points and put together a few comments in the attached document. The first comment relates to

(b)(5) Deliberative

(b)(5) Deliberative

(b)(5) Deliberative

I hope this is helpful. Please let me know if you would like me to review your overall summary as well.

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]

Sent: Wednesday, June 13, 2012 7:07 AM

To: Minnucci, Chris A.

Cc: Beddingfield, Erin N.; Kidman, Timothy M.

Subject: quick task for SAIC Re: Conference Call 2 PM eastern time

Hello,

API/ANGA recently released a report about national methane emissions from natural gas production. I've reviewed the report and cross-checked with EPA's inventory. I developed the summary attached to this email, and also the higher-level bullet points below.

Could SAIC take a quick look at the study and confirm that the bullet points below are accurate? I may ask for a more detailed review of the attached sheet later. It would be really useful to get the review of the bullet points by tomorrow AM. I think it is pretty straightforward and that the bullets are accurate, but no one else has looked in detail at the study and I just wanted to double check my work.

We can discuss at 2.

Thanks!
Melissa

- For many key data points in this study, API/ANGA's estimates are based on, or in line with, EPA estimates.
 - For emissions from hydraulically fractured well completions and recompletions, and many other sources, API/ANGA uses EPA's emissions factors.
 - The main difference between EPA's and API/ANGA's emissions totals was the data for emissions-reducing technologies for liquids unloading.

(b)(5) Deliberative



(b)(5) Deliberative

(See attached file: ANGA.API report.docx)

"Minnucci, Chris A." ---06/12/2012 04:53:37 PM---All,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/12/2012 04:53 PM
Subject: Conference Call 2 PM eastern time

All,

I've scheduled the inventory conference call for 2 to 3 PM Wednesday, June 13. Please use (b) (6) Privacy conference code (b) (6) Privacy

talk to you tomorrow,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 4:15 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm available after 2 tomorrow and after 3 on Thursday. Will either day work for you/Tim?

Melissa

"Minnucci, Chris A." ---06/12/2012 03:41:10 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 03:41 PM
Subject: RE: TO 07

Melissa,

Is noontime tomorrow ok for you? I have some constraints in the

afternoon, and want to be able to include Tim Kidman (on the west coast) on the call.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 2:56 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Let's have a call. It is probably not necessary to look at GRI for the level of detail we're looking for here.

Do you have time tomorrow to talk?

Melissa

"Minnucci, Chris A." ---06/12/2012 11:43:29 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 11:43 AM
Subject: RE: TO 07

Melissa,

Tim, Erin and I have finished our review of the inventory, and at this point we have a question on what the best procedure would be from here. It is our understanding that many of the emission factors, and maybe some of the activity data, in the inventory are based on the 1996 GRI data source. Assuming this is true (please let me know if it isn't), then most of our questions are on the GRI data. This being the case, we were wondering whether it would be better to (1) have the conference call and ask our GRI data questions during the call, or (2) do our own review of the GRI data source to get answers to these questions. If the latter option makes more sense from EPA's standpoint, rather than all 3 of us doing the review I would have Tim do it (because he actually has had some experience looking at that document in his past job). Erin and I would give him our questions up front so he can focus on getting answers to those questions. I understand it is a big document so don't want to have 3 people doing independent reviews when one of us can get the necessary answers more cost effectively.

Please let me know whether it would be best to proceed with a GRI review or directly to a call where an EPA person could address our GRI questions. Also if the latter, please let me know what would be some good times for you.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 4:57 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm going to suggest that we keep the inventory and the memo call separate--I think you're going to have a lot of questions about the inventory when you start looking at it...I know I did!

The Subpart W piece is going to be key (and also a bit urgent), so it would be good to bring in from the start someone who worked on the W reporting requirements and get them familiar with the inventory.

The calculation spreadsheet for the GHG Inventory is attached below. Please go ahead and get started on step 1.

Let me know if you have questions. We may want to do more than one call on questions on the inventory, in case any big questions hold up your review.

(See attached file: NaturalGasSystems_1990-2010
30Mar2012.xlsx)

"Minnucci, Chris A." ---06/07/2012 04:50:03 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 04:50 PM
Subject: RE: TO 07

Melissa,

Here's my estimate of hours and costs. We are planning to go mainly with Tim Kidman and myself to do the work, but we will be calling on 2 of the other folks from the Subpart W team--Erin Beddingfield and Matt Cleaver--on an as needed basis when we have questions about specific sources that they worked on during our Subpart W review. Note that in this estimate I suggest

(b)(5) deliberative

(b)(5) deliberative

(b)(5) deliberative

Totals: **(b)(5) deliberative**

We will await your ok on this before proceeding with the work, or if you need more info or want to discuss this estimate further just let me know; I can be reached at 610-296-2028. I'll be here tomorrow morning but out in the afternoon--back in Monday AM.

Also, as it will come up quickly in Step 2, if you could send us the memo when you get the chance that would be great.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 12:51 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Not sure yet of the schedule, but it will likely be pretty quick. We're

(b)(5) deliberative

possible to have the rest ready in some form by mid-July, that'd be great. But, I'll get back to you with more specifics on the schedule once we have a better sense of the timing on our plan to engage stakeholders on the inventory.

Melissa

"Minnucci, Chris A." ---06/07/2012 11:52:24 AM---Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. T

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 11:52 AM
Subject: RE: TO 07

Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. Then if you approve the estimate, we can get started immediately. Do you have a schedule for when this work should be completed?

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 10:27 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Thanks! The TD is drafted below. The workplan may change a bit as we move forward, but we'd like to get started as soon as possible on Step 1.

Would it be possible to get an estimate of hours/cost tomorrow?

We can set up a time to talk if you have questions.

Thanks!
Melissa

TD for SAIC under TO 7

(b)(5) Deliberative



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(b)(5) Deliberative



(b)(5) Deliberative



(b)(5) Deliberative

(b)(5) Deliberative

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

"Minnucci, Chris A." ---06/04/2012 09:52:51 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/04/2012 09:52 AM
Subject: RE: TO 07

Melissa,

One other important thing I forgot--

(b)(5) deliberative

(b)(5) deliberative

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]

Sent: Mon 6/4/2012 9:31 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

This is great, thanks Chris!

I'll get back to you in the next day or two. Thanks so much.

Melissa

"Minnucci, Chris A." ---06/02/2012 04:31:14 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/02/2012 04:31 PM
Subject: RE: TO 07

Melissa,

Yes, we have folks who are knowledgeable on that subject, having

(b)(5) deliberative



Team before looking further afield. Just let me know when you'd like to talk (or send me further details), and I'll work on finding the right people for the job.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 5/31/2012 5:25 PM
To: Minnucci, Chris A.
Subject: TO 07

Hi Chris,

Quick question--is there anyone at SAIC with expertise on oil and gas GHG emissions estimates who we could access under TO 07? Please think about it and let me know, and I'll get in touch soon with more details.

Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US]

[attachment "API_ANGA report review.docx" removed by Melissa Weitz/DC/USEPA/US]

=



Re: Revised one pager for Gina
Suzanne Kocchi to: Jonathan Lubetsky
Cc: Melissa Weitz, Suzanne Waltzer

06/15/2012 09:14 AM

History: This message has been forwarded.

This is helpful, thanks.

Jonathan Lubetsky That is exactly what I thought. Thank you! ... 06/14/2012 06:32:13 PM

From: Jonathan Lubetsky/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA, Suzanne Kocchi/DC/USEPA/US@EPA
Cc: Suzanne Waltzer/DC/USEPA/US@EPA
Date: 06/14/2012 06:32 PM
Subject: Re: Revised one pager for Gina

That is exactly what I thought. Thank you!

Melissa Weitz

----- Original Message -----

From: Melissa Weitz
Sent: 06/14/2012 05:51 PM EDT
To: Suzanne Kocchi
Cc: Suzanne Waltzer; Jonathan Lubetsky
Subject: Re: Revised one pager for Gina

It's a new one pager that they want- (b)(5) deliberative
(b)(5) deliberative

(b)(5) deliberative

(b)(5) deliberative

(b)(5) deliberative

I'm cc:ing Jonathan to make sure I'm understanding this correctly.

At any rate, I'm working on this list/summary now and will probably want to send around OAP before sending it to Jonathan.

Suzanne Kocchi (b)(5) deliberative 06/14/2012 05:44:47 PM



API/ANGA with additional info on refrac rate and liquids unloading

Melissa Weitz to: Suzanne Waltzer

06/15/2012 09:29 AM

I made two changes to add more info on refrac rate and liquids unloading.

(b)(5) Deliberative

Thanks for taking a look at these! API ANGA Study_061512.docx



Fw: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Melissa Weitz to: Suzanne Waltzer

06/15/2012 01:27 PM

Hi,

Haven't looked at this in detail yet, but I plan to on Monday.

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

-----Forwarded by Melissa Weitz/DC/USEPA/US on 06/15/2012
01:26PM -----

To: Melissa Weitz/DC/USEPA/US@EPA
From: "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/15/2012 01:22PM
Cc: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>,
"Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern
time

(See attached file: Liquids Unloading.xlsx)

Hi Melissa,

(b)(5) deliberative

(b)(5) deliberative Here's a summary of what's in the workbook:

(b)(5) Deliberative

(b)(5) Deliberative

Feel free to give me a call at 626-993-8872 if you'd like me to walk you through any of this or if you have other questions.

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]

Sent: Thursday, June 14, 2012 5:39 PM

To: Kidman, Timothy M.

Cc: Minnucci, Chris A.; Beddingfield, Erin N.

Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Generally, by Wednesday afternoon would be good.

But, if you see any glaring errors in my summary, it'd be great to know about them by Monday afternoon. Also, it'd be

(b)(5) deliberative

Thanks!
Melissa

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
wrote: -----

To: Melissa Weitz/DC/USEPA/US@EPA
From: "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/14/2012 08:20PM
Cc: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Melissa, sure. (b)(5) deliberative
(b)(5) deliberative When do you need these items?

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thursday, June 14, 2012 4:34 PM
To: Kidman, Timothy M.
Cc: Minnucci, Chris A.; Beddingfield, Erin N.
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

This was really useful Tim, thank you.

Would you be able to look at the liquids unloading estimates in more detail? (b)(5) deliberative

(b)(5) deliberative

(b)(5) deliberative

If I could get a quick review of the summary information I developed, that'd be great. It doesn't have to be detailed.

Thanks!

Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
wrote: -----

To: Melissa Weitz/DC/USEPA/US@EPA, "Minnucci, Chris A."
<CHRIS.A.MINNUCCI@saic.com>
From: "Kidman, Timothy M."
<TIMOTHY.M.KIDMAN@saic.com>
Date: 06/13/2012 10:20PM
Cc: "Beddingfield, Erin N."
<ERIN.N.BEDDINGFIELD@saic.com>
Subject: RE: quick task for SAIC Re: Conference Call 2 PM
eastern time

Hi Melissa,

I've taken a look at the report and your bullet points and put together a few comments in the attached document. The first comment relates to

(b)(5) Deliberative

(b)(5) Deliberative

I hope this is helpful. Please let me know if you would like me to review your overall summary as well.

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

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Sent: Wednesday, June 13, 2012 7:07 AM

To: Minnucci, Chris A.

Cc: Beddingfield, Erin N.; Kidman, Timothy M.

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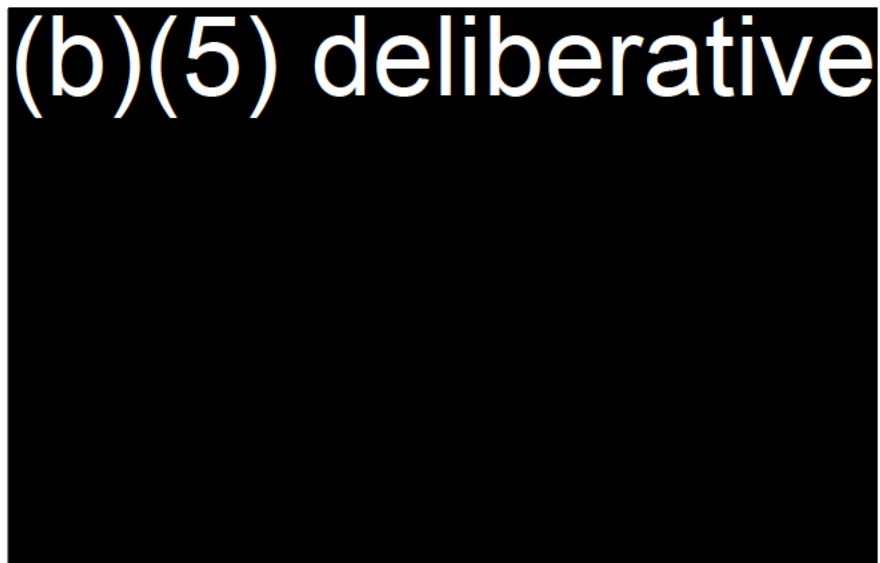
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(b)(5) deliberative



(See attached file: ANGA.API report.docx)

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To: Melissa Weitz/DC/USEPA/US@EPA, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/12/2012 04:53 PM
Subject: Conference Call 2 PM eastern time

All,

I've scheduled the inventory conference call for 2 to 3 PM Wednesday, June 13. Please use (b) (6) Privacy conference code (b) (6) Privacy

talk to you tomorrow,
Chris

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Subject: RE: TO 07

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Please let me know whether it would be best to proceed with a GRI review or directly to a call where an EPA person could address our GRI questions. Also if the latter, please let me know what would be some good times for you.

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Subject: RE: TO 07

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The Subpart W piece is going to be key (and also a bit urgent), so it would be good to bring in from the start someone who worked on the W reporting requirements and get them familiar with the inventory.

The calculation spreadsheet for the GHG Inventory is attached below. Please go ahead and get started on step 1.

Let me know if you have questions. We may want to do more than one call on questions on the inventory, in case any big questions hold up your review.

(See attached file: NaturalGasSystems_1990-2010
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Melissa,

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(b)(5) deliberative

(b)(5) deliberative

(b)(5) deliberative

Totals: **(b)(5) deliberative**

We will await your ok on this before proceeding with the work, or if you need more info or want to discuss this estimate further just let me know; I can be reached at 610-296-2028. I'll be here tomorrow morning but out in the afternoon--back in Monday AM.

Also, as it will come up quickly in Step 2, if you could send us the memo when you get the chance that would be great.

thanks,
Chris

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To: Minnucci, Chris A.
Subject: RE: TO 07

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(b)(5) deliberative

possible to have the rest ready in some form by mid-July, that'd be great. But, I'll get back to you with more specifics on the schedule once we have a better sense of the timing on our plan to engage stakeholders on the inventory.

Melissa

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To: Melissa Weitz/DC/USEPA/US@EPA
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We can set up a time to talk if you have questions.

Thanks!
Melissa

TD for SAIC under TO 7

(b)(5) Deliberative



(b)(5) Deliberative

(b)(5) Deliberative

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Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

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To: Melissa Weitz/DC/USEPA/US@EPA
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Melissa,

One other important thing I forgot--

(b)(5) deliberative

(b)(5) deliberative

Chris

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Melissa

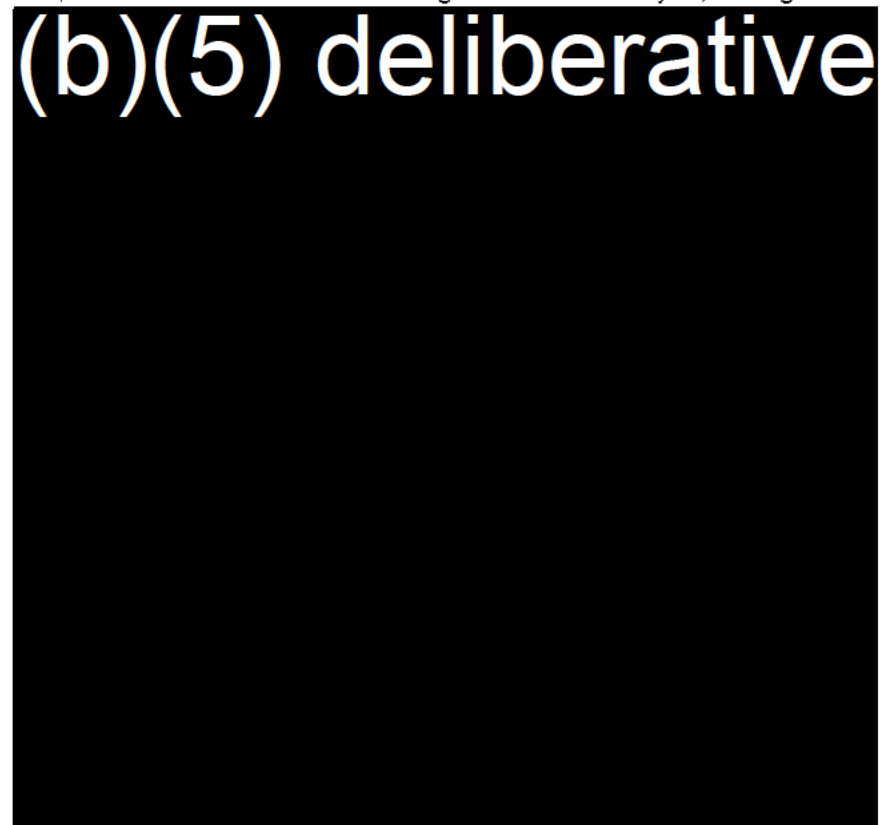
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Melissa,

Yes, we have folks who are knowledgeable on that subject, having

(b)(5) deliberative



Team before looking further afield. Just let me know when you'd like to talk (or send me further details), and I'll work on finding the right people for the job.

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Sent: Thu 5/31/2012 5:25 PM
To: Minnucci, Chris A.
Subject: TO 07

Hi Chris,

Quick question--is there anyone at SAIC with expertise on oil and gas GHG emissions estimates who we could access under TO 07? Please think about it and let me know, and I'll get in touch soon with more details.

Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897

Weitz.Melissa@epa.gov [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US]

[attachment "API_ANGA report review.docx" removed by Melissa Weitz/DC/USEPA/US]

=

(b)(5) Deliberative

= Liquids Unloading.xlsx



Q&A
Suzanne Kocchi to: Melissa Weitz

06/18/2012 12:44 PM

(b)(5) deliberative


Internal Q&A.docx



Re: Q&A 
Suzanne Kocchi to: Melissa Weitz

06/18/2012 02:13 PM

good, here are some thoughts in track change. take a look, revise as necessary and then make sure numbering is correct. you can send a clean copy to me and bill and then we can take another look. thanks!

(b)(5) deliberative


Internal Q&A mw_sk.docx

Melissa Weitz

Take a look at these and let me know if this see...

06/18/2012 01:48:43 PM

From: Melissa Weitz/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 06/18/2012 01:48 PM
Subject: Re: Q&A

Take a look at these and let me know if this seems like a good start. I'll probably need to make the answers shorter?

Suzanne Kocchi

From: Suzanne Kocchi/DC/USEPA/US To: Melis...

06/18/2012 12:44:44 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/18/2012 12:44 PM
Subject: Q&A

[attachment "Internal Q&A mw.docx" deleted by Suzanne Kocchi/DC/USEPA/US]



Re: Q&A - UPDATED AGAIN 
Suzanne Kocchi to: Melissa Weitz

06/18/2012 02:48 PM

started playing with a clean version to clean up typos. you may want to cut and paste some of these.

(b)(5) deliberative

Internal Q&A mw_sk.docx

Melissa Weitz

Got it--thanks! From: Suzanne Kocchi/DC/USEP...

06/18/2012 02:42:23 PM

From: Melissa Weitz/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 06/18/2012 02:42 PM
Subject: Re: Q&A - UPDATED AGAIN

Got it--thanks!

Suzanne Kocchi

Let's work in these 2 points also. I think maybe t...

06/18/2012 02:37:10 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Cc: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/18/2012 02:37 PM
Subject: Re: Q&A - UPDATED AGAIN

Let's work in these 2 points also. I think maybe to the Qs below or those already in the paper.

(b)(5) deliberative

Suzanne Kocchi

Some additional Qs to add: How much do well e...

06/18/2012 02:33:30 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Cc: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/18/2012 02:33 PM
Subject: Re: Q&A - UPDATED

Some additional Qs to add:

(b)(5) deliberative

(b)(5) deliberative

Suzanne Kocchi

[good, here are some thoughts in track change. ...](#)

06/18/2012 02:13:17 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/18/2012 02:13 PM
Subject: Re: Q&A

good, here are some thoughts in track change. take a look, revise as necessary and then make sure numbering is correct. you can send a clean copy to me and bill and then we can take another look. thanks!

[attachment "Internal Q&A mw_sk.docx" deleted by Suzanne Kocchi/DC/USEPA/US]

Melissa Weitz

[Take a look at these and let me know if this see...](#)

06/18/2012 01:48:43 PM

From: Melissa Weitz/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 06/18/2012 01:48 PM
Subject: Re: Q&A

Take a look at these and let me know if this seems like a good start. I'll probably need to make the answers shorter?


Suzanne Kocchi

[From: Suzanne Kocchi/DC/USEPA/US To: Melis...](#)

06/18/2012 12:44:44 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/18/2012 12:44 PM
Subject: Q&A

[attachment "Internal Q&A mw.docx" deleted by Suzanne Kocchi/DC/USEPA/US]

Re: Q&A - UPDATED AGAIN 
Melissa Weitz to: Suzanne Kocchi

06/18/2012 02:52 PM

Do you have a version in tracked changed? I just finished editing my version.

Suzanne Kocchi	started playing with a clean version to clean...	06/18/2012 02:48:56 PM
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From: Suzanne Kocchi/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/18/2012 02:48 PM
Subject: Re: Q&A - UPDATED AGAIN

started playing with a clean version to clean up typos. you may want to cut and paste some of these.

[attachment "Internal Q&A mw_sk.docx" deleted by Melissa Weitz/DC/USEPA/US]

Melissa Weitz	Got it--thanks! From: Suzanne Kocchi/DC/U...	06/18/2012 02:42:23 PM
Suzanne Kocchi	Let's work in these 2 points also. I think may...	06/18/2012 02:37:10 PM
Suzanne Kocchi	Some additional Qs to add: How much do w...	06/18/2012 02:33:30 PM
Suzanne Kocchi	good, here are some thoughts in track chan...	06/18/2012 02:13:17 PM
Melissa Weitz	Take a look at these and let me know if this...	06/18/2012 01:48:43 PM
Suzanne Kocchi	From: Suzanne Kocchi/DC/USEPA/US To:...	06/18/2012 12:44:44 PM



Re: Q&A - UPDATED AGAIN 
Suzanne Kocchi to: Melissa Weitz

06/18/2012 02:55 PM

History: This message has been forwarded.

sent it to you already. the one i just sent just accepted the changes and then i started correcting the typos. don't worry if it is too much.

Melissa Weitz	Do you have a version in tracked changed? ...	06/18/2012 02:52:53 PM
---------------	---	------------------------

From: Melissa Weitz/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 06/18/2012 02:52 PM
Subject: Re: Q&A - UPDATED AGAIN

Do you have a version in tracked changed? I just finished editing my version.

Suzanne Kocchi	started playing with a clean version to clean...	06/18/2012 02:48:56 PM
Melissa Weitz	Got it--thanks! From: Suzanne Kocchi/DC/U...	06/18/2012 02:42:23 PM
Suzanne Kocchi	Let's work in these 2 points also. I think may...	06/18/2012 02:37:10 PM
Suzanne Kocchi	Some additional Qs to add: How much do w...	06/18/2012 02:33:30 PM
Suzanne Kocchi	good, here are some thoughts in track chan...	06/18/2012 02:13:17 PM
Melissa Weitz	Take a look at these and let me know if this...	06/18/2012 01:48:43 PM
Suzanne Kocchi	From: Suzanne Kocchi/DC/USEPA/US To:...	06/18/2012 12:44:44 PM

Fw: quick task for SAIC Re: Conference Call 2 PM eastern time

Melissa Weitz to: Suzanne Waltzer

06/19/2012 07:17 PM

I don't think I sent this to you yet.

I haven't looked at it in detail yet.

----- Forwarded by Melissa Weitz/DC/USEPA/US on 06/19/2012 07:16 PM -----

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Cc: "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>
Date: 06/18/2012 11:44 AM
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Melissa,

As we discussed last week, attached please find our draft spreadsheet providing a crosswalk between the EPA inventory and the Subpart W data for well completions and workovers with hydraulic fracturing. We look forward to receiving your comments on the structure and content of the spreadsheet.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/14/2012 8:38 PM
To: Kidman, Timothy M.
Cc: Minnucci, Chris A.; Beddingfield, Erin N.
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Generally, by Wednesday afternoon would be good.

But, if you see any glaring errors in my summary, it'd be great to know about them by Monday afternoon.

(b)(5) deliberative

Thanks!
Melissa

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com> wrote: -----
To: Melissa Weitz/DC/USEPA/US@EPA
From: "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/14/2012 08:20PM
Cc: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Melissa, sure.

(b)(5) deliberative

(b)(5) deliberative

When do you need these items?

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [<mailto:Weitz.Melissa@epamail.epa.gov>]
Sent: Thursday, June 14, 2012 4:34 PM
To: Kidman, Timothy M.
Cc: Minnucci, Chris A.; Beddingfield, Erin N.
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

This was really useful Tim, thank you.

Would you be able to look at the liquids unloading estimates in more detail? (b)(5) deliberative

(b)(5) deliberative

If I could get a quick review of the summary information I developed, that'd be great. It doesn't have to be detailed.

Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com> wrote: -----

To: Melissa Weitz/DC/USEPA/US@EPA, "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
From: "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/13/2012 10:20PM
Cc: "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>

Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Hi Melissa,

I've taken a look at the report and your bullet points and put together a few comments in the attached document. The first comment

(b)(5) Deliberative

(b)(5) Deliberative

(b)(5) Deliberative

I hope this is helpful. Please let me know if you would like me to review your overall summary as well.

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [<mailto:Weitz.Melissa@epamail.epa.gov>]

Sent: Wednesday, June 13, 2012 7:07 AM

To: Minnucci, Chris A.

Cc: Beddingfield, Erin N.; Kidman, Timothy M.

Subject: quick task for SAIC Re: Conference Call 2 PM eastern time

Hello,

API/ANGA recently released a report about national methane emissions from natural gas production. I've reviewed the report and cross-checked with EPA's inventory. I developed the summary attached to this email, and also the higher-level bullet points below.

Could SAIC take a quick look at the study and confirm that the bullet points below are accurate? I may ask for a more detailed review of the attached sheet later. It would be really useful to get the review of the bullet points by tomorrow AM. I think it is pretty straightforward and that the bullets are accurate, but no one else has looked in detail at the study and I just wanted to double check my work.

We can discuss at 2.

Thanks!
Melissa

- For many key data points in this study, API/ANGA's estimates are based on, or in line with, EPA estimates.

- o For emissions from hydraulically fractured well completions and recompletions, and many other sources, API/ANGA uses EPA's emissions factors.
- o The main difference between EPA's and API/ANGA's emissions totals was the data for emissions-reducing technologies for liquids unloading.

(b)(5) deliberative

(See attached file: ANGA.API report.docx)

"Minnucci, Chris A." ---06/12/2012 04:53:37 PM---All,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>

To: Melissa Weitz/DC/USEPA/US@EPA, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>

Date: 06/12/2012 04:53 PM

Subject: Conference Call 2 PM eastern time

All,

I've scheduled the inventory conference call for 2 to 3 PM Wednesday, June 13. Please use (b) (6) Privacy conference code (b) (6) Privacy

talk to you tomorrow,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 4:15 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm available after 2 tomorrow and after 3 on Thursday. Will either day work for you/Tim?

Melissa

"Minnucci, Chris A." ---06/12/2012 03:41:10 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 03:41 PM
Subject: RE: TO 07

Melissa,

Is noontime tomorrow ok for you? I have some constraints in the afternoon, and want to be able to include Tim Kidman (on the west coast) on the call.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 2:56 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Let's have a call. It is probably not necessary to look at GRI for the level of detail we're looking for here.

Do you have time tomorrow to talk?

Melissa

"Minnucci, Chris A." ---06/12/2012 11:43:29 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 11:43 AM
Subject: RE: TO 07

Melissa,

Tim, Erin and I have finished our review of the inventory, and at this point we have a question on what the best procedure would be from here. It is our understanding that many of the emission factors, and maybe some of the activity data, in the inventory are based on the 1996 GRI data source. Assuming this is true (please let me know if it isn't), then most of our questions are on the GRI data. This being the case, we were wondering whether it would be better to (1) have the conference call and ask our GRI data questions during the call, or (2) do our own review of the GRI data source to get answers to these questions. If the latter option makes more sense from EPA's standpoint, rather than all 3 of us doing the review I would have Tim do it (because he actually has had some experience looking at that document in his past job). Erin and I would give him our questions up front so he can focus on getting answers to those questions. I understand it is a big document so don't want to have 3 people doing independent reviews when one of us can get the necessary answers more cost effectively.

Please let me know whether it would be best to proceed with a GRI review or directly to a call where an EPA person could address our GRI questions. Also if the latter, please let me know what would be some good times for you.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 4:57 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm going to suggest that we keep the inventory and the memo call separate--I think you're going to have a lot of questions about the inventory when you start looking at it...I know I did!

The Subpart W piece is going to be key (and also a bit urgent), so it would be good to bring in from the start someone who worked on the W reporting requirements and get them familiar with the inventory.

The calculation spreadsheet for the GHG Inventory is attached below. Please go ahead and get started on step 1.

Let me know if you have questions. We may want to do more than one call on questions on the inventory, in case any big questions hold up your review.

(See attached file: NaturalGasSystems_1990-2010 30Mar2012.xlsx)

"Minnucci, Chris A." ---06/07/2012 04:50:03 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 04:50 PM
Subject: RE: TO 07

Melissa,

Here's my estimate of hours and costs. We are planning to go mainly with Tim Kidman and myself to do the work, but we will be calling on 2 of the other folks from the Subpart W team--Erin Beddingfield and Matt Cleaver--on an as needed basis when we have questions about specific sources that they worked on during our Subpart W review. Note that in this estimate I suggest (b)(5) deliberative

(b)(5) deliberative

Totals: (b)(5) deliberative

We will await your ok on this before proceeding with the work, or if you need more info or want to discuss this estimate further just let me know; I can be reached at 610-296-2028. I'll be here tomorrow morning but out in the afternoon--back in Monday AM.

Also, as it will come up quickly in Step 2, if you could send us the memo when you get the chance that would be great.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 12:51 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Not sure yet of the schedule, but it will likely be pretty quick. We're (b)(5) deliberative

(b)(5) deliberative

it'd be possible to have the rest ready in some form by mid-July, that'd be great. But, I'll get back to you with more specifics on the schedule once we have a better sense of the timing on our plan to engage stakeholders on the inventory.

Melissa

"Minnucci, Chris A." ---06/07/2012 11:52:24 AM---Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. T

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 11:52 AM
Subject: RE: TO 07

Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. Then if you approve the estimate, we can get started immediately. Do you have a schedule for when this work should be completed?

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 10:27 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Thanks! The TD is drafted below. The workplan may change a bit as we move forward, but we'd like to get started as soon as possible on Step 1.

Would it be possible to get an estimate of hours/cost tomorrow?

We can set up a time to talk if you have questions.

Thanks!
Melissa

TD for SAIC under TO 7

(b)(5) Deliberative

(b)(5) Deliberative



(b)(5) Deliberative



(b)(5) Deliberative



(b)(5) Deliberative

(b)(5) Deliberative

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

"Minnucci, Chris A." ---06/04/2012 09:52:51 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/04/2012 09:52 AM
Subject: RE: TO 07

Melissa,

One other important thing I forgot--

(b)(5) deliberative

(b)(5) deliberative

Chris

From: Melissa Weitz [<mailto:Weitz.Melissa@epamail.epa.gov>]
Sent: Mon 6/4/2012 9:31 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

This is great, thanks Chris!

I'll get back to you in the next day or two. Thanks so much.

Melissa

"Minnucci, Chris A." ---06/02/2012 04:31:14 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/02/2012 04:31 PM
Subject: RE: TO 07

Melissa,

Yes, we have folks who are knowledgeable on that subject.

(b)(5) deliberative

(b)(5) deliberative



(b)(5) deliberative

Just let me know when

you'd like to talk (or send me further details), and I'll work on finding the right people for the job.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 5/31/2012 5:25 PM
To: Minnucci, Chris A.
Subject: TO 07

Hi Chris,

Quick question--is there anyone at SAIC with expertise on oil and gas GHG emissions estimates who we could access under TO 07? Please think about it and let me know, and I'll get in touch soon with more details.

Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division

(202) 343-9897

Weitz.Melissa@epa.gov [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US]
[attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by
Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US]
[attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by
Melissa Weitz/DC/USEPA/US]

[attachment "API_ANGA report review.docx" removed by Melissa Weitz/DC/USEPA/US]

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(b)(5) Deliberative

(b)(5) Deliberative

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RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Kidman, Timothy M. to: Melissa Weitz

06/20/2012 01:39 PM

Cc: "Minnucci, Chris A.", "Beddingfield, Erin N."

History: This message has been forwarded.

Hi Melissa,

I've inserted some comments and edits in your document, attached.
Please feel free to give me a call at 626-993-8872 if you have any
questions or would like to walk through the comments.

Best,
Tim

Tim Kidman | SAIC
Climate Change Analyst
Energy, Environment & Infrastructure Solutions
office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thursday, June 14, 2012 5:39 PM
To: Kidman, Timothy M.
Cc: Minnucci, Chris A.; Beddingfield, Erin N.
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Generally, by Wednesday afternoon would be good.

But, if you see any glaring errors in my summary, it'd be
great to know about them by Monday afternoon. Also, it'd be

(b)(5) deliberative

Thanks!
Melissa

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
wrote: -----

To: Melissa Weitz/DC/USEPA/US@EPA

From: "Kidman, Timothy M."

<TIMOTHY.M.KIDMAN@saic.com>

Date: 06/14/2012 08:20PM

Cc: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>,
"Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>

Subject: RE: quick task for SAIC Re: Conference Call 2 PM
eastern time

Melissa, sure. (b)(5) deliberative
(b)(5) deliberative When do you
need these items?

Tim

Tim Kidman | SAIC
Climate Change Analyst
Energy, Environment & Infrastructure Solutions
office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thursday, June 14, 2012 4:34 PM
To: Kidman, Timothy M.
Cc: Minnucci, Chris A.; Beddingfield, Erin N.
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

This was really useful Tim, thank you.

Would you be able to look at the liquids unloading estimates
in more detail? (b)(5) deliberative

(b)(5) deliberative

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Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
wrote: -----

To: Melissa Weitz/DC/USEPA/US@EPA, "Minnucci, Chris A."
<CHRIS.A.MINNUCCI@saic.com>
From: "Kidman, Timothy M."
<TIMOTHY.M.KIDMAN@saic.com>
Date: 06/13/2012 10:20PM
Cc: "Beddingfield, Erin N."
<ERIN.N.BEDDINGFIELD@saic.com>
Subject: RE: quick task for SAIC Re: Conference Call 2 PM
eastern time
Hi Melissa,

I've taken a look at the report and your bullet points and put together a few comments in the attached document. The first comment relates to

(b)(5) Deliberative

(b)(5) Deliberative

I hope this is helpful. Please let me know if you would like me to review your overall summary as well.

Tim

Tim Kidman | SAIC
Climate Change Analyst
Energy, Environment & Infrastructure Solutions
office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Wednesday, June 13, 2012 7:07 AM
To: Minnucci, Chris A.
Cc: Beddingfield, Erin N.; Kidman, Timothy M.
Subject: quick task for SAIC Re: Conference Call 2 PM eastern time

Hello,

API/ANGA recently released a report about national methane emissions from natural gas production. I've reviewed the report and cross-checked with EPA's inventory. I developed the summary attached to this email, and also the higher-level bullet points below.

Could SAIC take a quick look at the study and confirm that the bullet points below are accurate? I may ask for a more

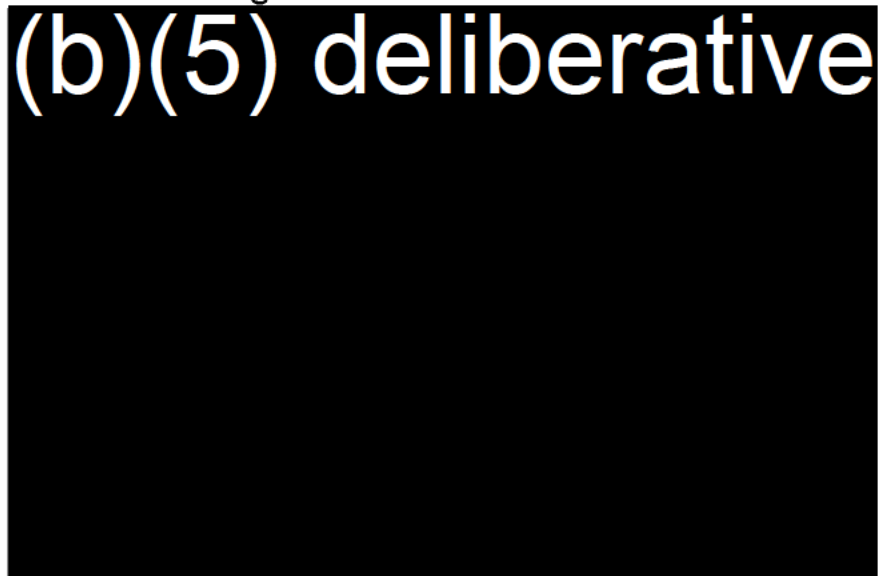
detailed review of the attached sheet later. It would be really useful to get the review of the bullet points by tomorrow AM. I think it is pretty straightforward and that the bullets are accurate, but no one else has looked in detail at the study and I just wanted to double check my work.

We can discuss at 2.

Thanks!
Melissa

- For many key data points in this study, API/ANGA's estimates are based on, or in line with, EPA estimates.
 - For emissions from hydraulically fractured well completions and recompletions, and many other sources, API/ANGA uses EPA's emissions factors.
 - The main difference between EPA's and API/ANGA's emissions totals was the data for emissions-reducing technologies for liquids unloading.

(b)(5) deliberative



(See attached file: ANGA.API report.docx)

☞ "Minnucci, Chris A." ---06/12/2012 04:53:37 PM---All,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/12/2012 04:53 PM

Subject: Conference Call 2 PM eastern time

All,

I've scheduled the inventory conference call for 2 to 3 PM Wednesday, June 13. Please use (b) (6) Privacy conference code (b) (6) Privacy

talk to you tomorrow,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 4:15 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm available after 2 tomorrow and after 3 on Thursday. Will either day work for you/Tim?

Melissa

"Minnucci, Chris A." ---06/12/2012 03:41:10 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 03:41 PM
Subject: RE: TO 07

Melissa,

Is noontime tomorrow ok for you? I have some constraints in the afternoon, and want to be able to include Tim Kidman (on the west coast) on the call.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 2:56 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Let's have a call. It is probably not necessary to look at GRI for the level of detail we're looking for here.

Do you have time tomorrow to talk?

Melissa

"Minnucci, Chris A." ---06/12/2012 11:43:29 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 11:43 AM
Subject: RE: TO 07

Melissa,

Tim, Erin and I have finished our review of the inventory, and at this point we have a question on what the best procedure would be from here. It is our understanding that many of the emission factors, and maybe some of the activity data, in the inventory are based on the 1996 GRI data source. Assuming this is true (please let me know if it isn't), then most of our questions are on the GRI data. This being the case, we were wondering whether it would be better to (1) have the conference call and ask our GRI data questions during the call, or (2) do our own review of the GRI data source to get answers to these questions. If the latter option makes more sense from EPA's standpoint, rather than all 3 of us doing the review I would have Tim do it (because he actually has had some experience looking at that document in his past job). Erin and I would give him our questions up front so he can focus on getting answers to those questions. I understand it is a big document so don't want to have 3 people doing independent reviews when one of us can get the necessary answers more cost effectively.

Please let me know whether it would be best to proceed with a GRI review or directly to a call where an EPA person could address our GRI questions. Also if the latter, please let me know what would be some good times for you.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 4:57 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm going to suggest that we keep the inventory and the memo call separate--I think you're going to have a lot of questions about the inventory when you start looking at it...I know I did!

The Subpart W piece is going to be key (and also a bit urgent), so it would be good to bring in from the start someone who worked on the W reporting requirements and get them familiar with the inventory.

The calculation spreadsheet for the GHG Inventory is attached below. Please go ahead and get started on step 1.

Let me know if you have questions. We may want to do more than one call on questions on the inventory, in case any big questions hold up your review.

(See attached file: NaturalGasSystems_1990-2010 30Mar2012.xlsx)

"Minnucci, Chris A." ---06/07/2012 04:50:03 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 04:50 PM
Subject: RE: TO 07

Melissa,

Here's my estimate of hours and costs. We are planning to go mainly with Tim Kidman and myself to do the work, but we will be calling on 2 of the other folks from the Subpart W team--Erin Beddingfield and Matt Cleaver--on an as needed basis when we have questions about specific sources that they worked on during our Subpart W review. Note that in this estimate I suggest (b)(5) deliberative

(b)(5) deliberative

Totals: **(b)(5) deliberative**

We will await your ok on this before proceeding with the work, or if you need more info or want to discuss this estimate further just let me know; I can be reached at 610-296-2028. I'll be here tomorrow morning but out in the afternoon--back in Monday AM.

Also, as it will come up quickly in Step 2, if you could send us the memo when you get the chance that would be great.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 12:51 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Not sure yet of the schedule, but it will likely be pretty quick. We're

(b)(5) deliberative

possible to have the rest ready in some form by mid-July, that'd be great. But, I'll get back to you with more specifics on the schedule once we have a better sense of the timing on our plan to engage stakeholders on the inventory.

Melissa

"Minnucci, Chris A." ---06/07/2012 11:52:24 AM---Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. T

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 11:52 AM
Subject: RE: TO 07

Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. Then if you approve the estimate, we can get started immediately. Do you have a schedule for when this work should be completed?

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 10:27 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Thanks! The TD is drafted below. The workplan may change a bit as we move forward, but we'd like to get started as soon as possible on Step 1.

Would it be possible to get an estimate of hours/cost tomorrow?

We can set up a time to talk if you have questions.

Thanks!
Melissa

TD for SAIC under TO 7

(b)(5) Deliberative



(b)(5) Deliberative



(b)(5) Deliberative

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

"Minnucci, Chris A." ---06/04/2012 09:52:51 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/04/2012 09:52 AM
Subject: RE: TO 07

Melissa,

One other important thing I forgot-- (b)(5) deliberative

(b)(5) deliberative

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Mon 6/4/2012 9:31 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

This is great, thanks Chris!

I'll get back to you in the next day or two. Thanks so much.

Melissa

"Minnucci, Chris A." ---06/02/2012 04:31:14 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/02/2012 04:31 PM
Subject: RE: TO 07

Melissa,

Yes, we have folks who are knowledgeable on that subject, having

(b)(5) deliberative

(b)(5) deliberative

Team before looking further afield. Just let me know when you'd like to talk (or send me further details), and I'll work on finding the right people for the job.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 5/31/2012 5:25 PM
To: Minnucci, Chris A.
Subject: TO 07

Hi Chris,

Quick question--is there anyone at SAIC with expertise on oil and gas GHG emissions estimates who we could access under TO 07? Please think about it and let me know, and I'll get in touch soon with more details.

Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif" deleted by Melissa Weitz/DC/USEPA/US]

[attachment "API_ANGA report review.docx" removed by Melissa Weitz/DC/USEPA/US]

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(b)(5) Deliberative

=ANGA API report_tk.docx



RE: HPDI Well Analysis for Liquids

Cacho, Mariella to: Greene, Kevin, Suzanne Waltzer, Melissa Weitz, Roger Fernandez

06/20/2012 04:20 PM

Cc: "Robinson, Donald", "Toukan, Ibrahim", "Abraham, Ryan", "Stricklin, Eric"

History: This message has been forwarded.

Suzie,

Please find attached a Memo

(b)(5) Deliberative

(b)(5) Deliberative

(b)(5) Deliberative

The keeper of the database has been out of the office since last week. He will be coming back on Friday. We'll have that analysis earlier next week.

Later tonight I will send you the API/ANGA review Memo. We are finishing it up as we speak.

Please let me know if you have any questions.

Thank you,

Mariella

Mariella Cacho | 703.218.2712 | mariella.cacho@icfi.com
ICF INTERNATIONAL | 9300 Lee Highway, Fairfax, VA 22031

From: Greene, Kevin
Sent: Wednesday, June 13, 2012 5:29 PM
To: Suzanne Waltzer; Melissa Weitz; Roger Fernandez
Cc: Robinson, Donald; Toukan, Ibrahim; Cacho, Mariella; Abraham, Ryan
Subject: RE: HPDI Well Analysis for Liquids

Suzie, Melissa, and Roger,

The following are ICF's action items per our conversation today:

(b)(5) Deliberative

(b)(5) Deliberative

Please let me know if we left anything out or if anything else is needed.

Thanks,

Kevin T. Greene

ICF International | 9300 Lee Highway, Fairfax, VA 22031 | www.icfi.com
(703) 934 3996 | Kevin.Greene@icfi.com

From: Suzanne Waltzer [<mailto:Waltzer.Suzanne@epamail.epa.gov>]
Sent: Wednesday, June 13, 2012 2:48 PM
To: Greene, Kevin
Cc: Robinson, Donald; Toukan, Ibrahim; Cacho, Mariella; Melissa Weitz; Roger Fernandez; Carey Bylin; Akachi Imegwu
Subject: Re: HPDI Well Analysis for Liquids

Thanks, Kevin. Ccing others who will be participating today as well.

Carey and Akachi, this is an optional meeting. Just if you are interested in listening in on ICFs review of the API/ANGA specifically related to liquids unloading.

(See attached file: HPDI Onshore Gas Well Analysis for Liquids 6_13_12.docx)

Suzie Waltzer
Natural Gas STAR Program
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6207J)
Phone: 202-343-9544
Web: www.epa.gov/gasstar

"Greene, Kevin" ---06/13/2012 02:45:03 PM---Suzie, Attached is an analysis for our call at 3PM, concerning wells with liquids.

From: "Greene, Kevin" <Kevin.Greene@icfi.com>
To: Suzanne Waltzer/DC/USEPA/US@EPA
Cc: "Robinson, Donald" <Donald.Robinson@icfi.com>, "Cacho, Mariella" <

Mariella.Cacho@icfi.com>, "Toukan, Ibrahim" <Ibrahim.Toukan@icfi.com>
Date: 06/13/2012 02:45 PM
Subject: HPDI Well Analysis for Liquids

Suzie,

Attached is an analysis for our call at 3PM, concerning wells with liquids.

Thanks,

Kevin T. Greene

ICF International | 9300 Lee Highway, Fairfax, VA 22031 | www.icfi.com

(703) 934 3996 | Kevin.Greene@icfi.com

[attachment "HPDI Onshore Gas Well Analysis for Liquids 6_13_12.docx"

deleted by Suzanne Walizer/DC/I/SEPA/US]

(b)(5) Deliberative

BLM Improvement Memo 6_20_12.KG- mc.docx



Re: Fw: review of slide for Bill's presentation at AWMA 
Suzanne Waltzer to: Melissa Weitz
Cc: Carey Bylin

06/21/2012 09:30 AM

History: This message has been replied to and forwarded.

Hi Melissa,

My comments are below. I am ccing Carey to make sure I am correct on the WGC paper but I am

(b)(5) deliberative

(b)(5) deliberative

Carey, please correct me if my assessment

of the WGC paper is wrong.

Thanks! Hope all is going well so far.

Suzie

•Main changes to Inventory were

(b)(5) deliberative

Suzie Waltzer
Natural Gas STAR Program
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6207J)
Phone: 202-343-9544

Web: www.epa.gov/gasstar

Melissa Weitz	From: Melissa Weitz/DC/USEPA/US To: Suz...	06/20/2012 07:28:28 PM
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From: Melissa Weitz/DC/USEPA/US
To: Suzanne Waltzer/DC/USEPA/US@EPA
Date: 06/20/2012 07:28 PM
Subject: Fw: review of slide for Bill's presentation at AWMA

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

-----Forwarded by Melissa Weitz/DC/USEPA/US on 06/20/2012 07:28PM -----

To: Suzanne Waltzer/DC/USEPA/US@EPA
From: Melissa Weitz/DC/USEPA/US
Date: 06/18/2012 11:17AM
Subject: review of slide for Bill's presentation at AWMA

Hi Suzie,

Would you be able to take a quick look at slide 7?

I added information to this slide to summarize updates to the 1990-2010 inventory, but I want to be sure that my summary is accurate for the sources I'm less familiar with.

Melissa

(See attached file: Slides for AWMA mw BI mw.pptx)[attachment "Slides for AWMA mw BI mw.pptx" deleted by Suzanne Waltzer/DC/USEPA/US]



Re: Fw: FEEDBACK REQUESTED

Suzanne Waltzer to: Melissa Weitz

06/21/2012 10:20 AM

History: This message has been forwarded.

Looks great to me.

I would just be sure to cc Suzie K and note for her that this is in response to a press request since this information has not yet been made public. That way, she can flag for Paul if needed.

Suzie

Suzie Waltzer
Natural Gas STAR Program
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6207J)
Phone: 202-343-9544
Web: www.epa.gov/gasstar

Melissa Weitz

I took the bullets below from our one pager f...

06/21/2012 09:27:41 AM

From: Melissa Weitz/DC/USEPA/US
To: Suzanne Waltzer/DC/USEPA/US@EPA
Date: 06/21/2012 09:27 AM
Subject: Fw: FEEDBACK REQUESTED

I took the bullets below from our one pager for Gina and then added one bullet. Some additions in bold.

API and ANGA released a report last week based on data from 91,000 wells that concluded that emissions are 50 percent of EPA's estimate. If accurate, that means the rule's cost effectiveness will be lower than EPA contends and producers will be less likely to recover their compliance costs.

What is EPA's position on this new data? How, if at all, does it change EPA's assumptions?

(b)(5) deliberative

(b)(5) deliberative

-----Forwarded by Melissa Weitz/DC/USEPA/US on 06/21/2012 09:16AM -----

To: Alex Macpherson/RTP/USEPA/US@EPA, Suzanne Waltzer/DC/USEPA/US@EPA, Melissa Weitz/DC/USEPA/US@EPA, Heather Brown <brown.heatherlynn@ecrweb.com>, Brad Nelson <nelson.brad@ecrweb.com>, David Hendricks <hendricks.david@ecrweb.com>

From: Bruce Moore/RTP/USEPA/US

Date: 06/21/2012 08:58AM

Cc: David Cozzie/RTP/USEPA/US@EPA, Alison Davis/RTP/USEPA/US@EPA

Subject: Fw: FEEDBACK REQUESTED

Forgive the exclamation point, but I heard that Alison needs this by 10:00 or so...

Please look at the questions below. I think Alison already shared with Alex, so you are a little ahead of Suzie, Melissa, and Heather.

I think we're trying to keep this simple and not confrontational, and bear in mind the study was based on the proposal RIA, not the final.

Here's the distribution, I think:

- 1: Alex
- 2: Alex, Suzie
- 3: Bruce/Heather
- 4: Bruce/Suzie/Alex
- 5: Melissa/Alex

Bruce Moore
Senior Technical Advisor, Oil and Natural Gas Sector

Sector Policies and Programs Division
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency (E143-01)
Research Triangle Park, NC 27711
Phone (919) 541-5460 Fax (919) 541-0246
["moore.bruce@epa.gov"](mailto:moore.bruce@epa.gov)

----- Forwarded by Bruce Moore/RTP/USEPA/US on 06/21/2012 08:51 AM -----

From: David Cozzie/RTP/USEPA/US
To: Bruce Moore/RTP/USEPA/US@EPA
Date: 06/20/2012 03:03 PM
Subject: Fw: FEEDBACK REQUESTED - per our discussion

We need to talk about an approach for this. Alison is coordinating with Alex, we probably need to bring Suzie in on question 5 (and maybe 3). We are looking to just point the person to the place in the rule or docket where he can find the info.

----- Forwarded by David Cozzie/RTP/USEPA/US on 06/20/2012 03:01 PM -----

From: Alison Davis/RTP/USEPA/US
To: David Cozzie/RTP/USEPA/US@EPA
Date: 06/20/2012 02:43 PM
Subject: FEEDBACK REQUESTED - per our discussion

There are two notes. He asked for this last week, but we were crunching on PM, and Alex was out, then Bruce was going to be out, so we asked for more time. My feeling is (b)(5) deliberative (b)(5) deliberative What are your thoughts?

First email -

Ernesta:

Below is a list of the questions I am trying to address to complete my study. I am hoping to finish by the end of this week or early next. I'd like the opportunity to talk with your subject-matter expert(s) and ask follow-up questions if needed for clarity.

1. Comparing EPA compliance cost estimates with API estimates as contained in David Simpson's review of the original RIA, Attachment G to API's comments, attached. (Note: I have addressed similar questions to API and am awaiting its response):

a. On row 3 of Table G-2:Cost per REC, API lists \$30,000 as "variable cost per installation," which it describes in the text as above as for "mobilization/demobilization."

Simpson contrasts this with an EPA figure of \$691, which I believe is derived from p. 3-23 of the revised RIA (transportation and setup costs). Can you explain this discrepancy?

b. On table G-3: Cost of Completions with flaring, API cites a cost of \$90,000 for equipment and installation, versus only \$3,523 for EPA (from RIA pages 3-12 (table 3-2) and p. 3-23). What explains this discrepancy?

2. Treatment of "conventional" wells

Simpson contends EPA's estimate on the number of wells covered by the rule is about 60 percent too low because it fails to include about 7,600 "conventional" gas wells drilled annually, virtually all of which also use

fracturing to increase well output. (See Table G-3 of Simpson attachment.)

EPA comment? Will conventional wells using hydraulic fracturing be covered by the rule?

3. Gas composition

EPA assumed that escaping natural gas contains an average of 83 percent methane (plus or minus 1.4 percent at the 95 percent confidence level) and 3.6 percent volatile organic compounds by volume (plus or minus 0.33 percent). (Composition of Natural Gas for use in the Oil and Natural Gas Sector Rulemaking, memo from Heather Brown, P.E., EC/R Inc., to Bruce Moore, EPA, July 28, 2011, Table 7.)

This same document showed methane concentrations ranging from 65.7 percent to 97.2 percent and VOC concentrations from 1.2 percent to 5.7 percent. How does EPA compute such a narrow confidence level given these underlying numbers?

4. Definition of exploratory wells

Industry officials are concerned that the regulation will slow exploration because of how EPA defines exploratory and delineation wells exempt from green completions. Producers typically drill a dozen or more exploratory wells in an area before deciding whether to invest in a pipeline to capture the fuel for sale. Industry officials say the new regulations may limit producers to drilling as few as two wells before being compelled to connect them to pipelines.

What does EPA say regarding this concern?

5. API-ANGA survey released last week

API and ANGA released a report last week based on data from 91,000 wells that concluded that emissions are 50 percent of EPA's estimate. If accurate, that means the rule's cost effectiveness will be lower than EPA contends and producers will be less likely to recover their compliance costs.

What is EPA's position on this new data? How, if at all, does it change EPA's assumptions?

Thanks again for your help. Feel free to call me if any of this is unclear.

Regards, Rich Heidorn

(See attached file: simpson - revw of ria for api att.pdf)

SEcond email --

From the analyst:

I've received answers back from API on two of the questions (1 a&b) I sent you yesterday. I thought it would be helpful to you to see them in compiling your responses. Please see the Word doc attached; API's responses are in red.

(See attached file: api response for epa.docx)

Alison Davis
Sr. Advisor for Public Affairs
US EPA, Office of Air Quality Planning & Standards
Research Triangle Park, NC 27711
tel. 919-541-7587
mobile: 919-624-0872

[attachment "simpson - revw of ria for api att.pdf" removed by Melissa Weitz/DC/USEPA/US]

[attachment "api response for epa.docx" removed by Melissa Weitz/DC/USEPA/US]



Re: Fw: FEEDBACK REQUESTED -UPDATE DO NOT NEED TO
RESPOND TO QUESTIONS

Suzanne Waltzer to: Melissa Weitz

06/21/2012 11:08 AM

History: This message has been forwarded.

I just talked to Bruce and we do not need to respond to specific questions. Alison is going to send a statement instead.

Lets hold onto this though as it could definitely come up again

Suzie

Suzie Waltzer
Natural Gas STAR Program
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW (6207J)
Phone: 202-343-9544
Web: www.epa.gov/gasstar

Melissa Weitz

I took the bullets below from our one pager f...

06/21/2012 09:27:41 AM

From: Melissa Weitz/DC/USEPA/US
To: Suzanne Waltzer/DC/USEPA/US@EPA
Date: 06/21/2012 09:27 AM
Subject: Fw: FEEDBACK REQUESTED

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(b)(5) deliberative

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To: Alex Macpherson/RTP/USEPA/US@EPA, Suzanne Waltzer/DC/USEPA/US@EPA, Melissa Weitz/DC/USEPA/US@EPA, Heather Brown <brown.heatherlynn@ecrweb.com>, Brad Nelson <nelson.brad@ecrweb.com>, David Hendricks <hendricks.david@ecrweb.com>

From: Bruce Moore/RTP/USEPA/US

Date: 06/21/2012 08:58AM

Cc: David Cozzie/RTP/USEPA/US@EPA, Alison Davis/RTP/USEPA/US@EPA

Subject: Fw: FEEDBACK REQUESTED

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- 1: Alex
- 2: Alex, Suzie
- 3: Bruce/Heather
- 4: Bruce/Suzie/Alex
- 5: Melissa/Alex

Bruce Moore
Senior Technical Advisor, Oil and Natural Gas Sector

Sector Policies and Programs Division
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency (E143-01)
Research Triangle Park, NC 27711
Phone (919) 541-5460 Fax (919) 541-0246
["moore.bruce@epa.gov"](mailto:moore.bruce@epa.gov)

----- Forwarded by Bruce Moore/RTP/USEPA/US on 06/21/2012 08:51 AM -----

From: David Cozzie/RTP/USEPA/US

To: Bruce Moore/RTP/USEPA/US@EPA
Date: 06/20/2012 03:03 PM
Subject: Fw: FEEDBACK REQUESTED - per our discussion

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----- Forwarded by David Cozzie/RTP/USEPA/US on 06/20/2012 03:01 PM -----

From: Alison Davis/RTP/USEPA/US
To: David Cozzie/RTP/USEPA/US@EPA
Date: 06/20/2012 02:43 PM
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(b)(5) deliberative What are your thoughts?

First email -

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1. Comparing EPA compliance cost estimates with API estimates as contained in David Simpson's review of the original RIA, Attachment G to API's comments, attached. (Note: I have addressed similar questions to API and am awaiting its response):

a. On row 3 of Table G-2:Cost per REC, API lists \$30,000 as "variable cost per installation," which it describes in the text as above as for "mobilization/demobilization."

Simpson contrasts this with an EPA figure of \$691, which I believe is derived from p. 3-23 of the revised RIA (transportation and setup costs). Can you explain this discrepancy?

b. On table G-3: Cost of Completions with flaring, API cites a cost of \$90,000 for equipment and installation, versus only \$3,523 for EPA (from RIA pages 3-12 (table 3-2) and p. 3-23). What explains this discrepancy?

2. Treatment of "conventional" wells

Simpson contends EPA's estimate on the number of wells covered by the rule is about 60 percent too low because it fails to include about 7,600

"conventional" gas wells drilled annually, virtually all of which also use fracturing to increase well output. (See Table G-3 of Simpson attachment.)

EPA comment? Will conventional wells using hydraulic fracturing be covered

by the rule?

3. Gas composition

EPA assumed that escaping natural gas contains an average of 83 percent methane (plus or minus 1.4 percent at the 95 percent confidence level) and 3.6 percent volatile organic compounds by volume (plus or minus 0.33 percent). (Composition of Natural Gas for use in the Oil and Natural Gas Sector Rulemaking, memo from Heather Brown, P.E., EC/R Inc., to Bruce Moore, EPA, July 28, 2011, Table 7.)

This same document showed methane concentrations ranging from 65.7 percent to 97.2 percent and VOC concentrations from 1.2 percent to 5.7 percent. How does EPA compute such a narrow confidence level given these underlying numbers?

4. Definition of exploratory wells

Industry officials are concerned that the regulation will slow exploration because of how EPA defines exploratory and delineation wells exempt from green completions. Producers typically drill a dozen or more exploratory wells in an area before deciding whether to invest in a pipeline to capture the fuel for sale. Industry officials say the new regulations may limit producers to drilling as few as two wells before being compelled to connect them to pipelines.

What does EPA say regarding this concern?

5. API-ANGA survey released last week

API and ANGA released a report last week based on data from 91,000 wells that concluded that emissions are 50 percent of EPA's estimate. If accurate, that means the rule's cost effectiveness will be lower than EPA contends and producers will be less likely to recover their compliance costs.

What is EPA's position on this new data? How, if at all, does it change EPA's assumptions?

Thanks again for your help. Feel free to call me if any of this is unclear.

Regards, Rich Heidorn

(See attached file: simpson - revw of ria for api att.pdf)

SEcond email --

From the analyst:

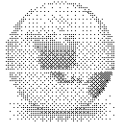
I've received answers back from API on two of the questions (1 a&b) I sent you yesterday. I thought it would be helpful to you to see them in compiling your responses. Please see the Word doc attached; API's responses are in red.

(See attached file: api response for epa.docx)

Alison Davis
Sr. Advisor for Public Affairs
US EPA, Office of Air Quality Planning & Standards
Research Triangle Park, NC 27711
tel. 919-541-7587
mobile: 919-624-0872

[attachment "simpson - revw of ria for api att.pdf" removed by Melissa Weitz/DC/USEPA/US]

[attachment "api response for epa.docx" removed by Melissa Weitz/DC/USEPA/US]



RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Kidman, Timothy M. to: Melissa Weitz

06/21/2012 09:37 PM

Cc: "Minnucci, Chris A.", "Beddingfield, Erin N."

History:

This message has been replied to and forwarded.

Hi Melissa,

I just wanted to check in and see if you had any part of the Memo that you could share at this point? I should have some time tomorrow to work on this if it's available.

Thanks,

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Kidman, Timothy M.

Sent: Wednesday, June 20, 2012 10:39 AM

To: Melissa Weitz

Cc: Minnucci, Chris A.; Beddingfield, Erin N.

Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Hi Melissa,

I've inserted some comments and edits in your document, attached. Please feel free to give me a call at 626-993-8872 if you have any questions or would like to walk through the comments.

Best,

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]

Sent: Thursday, June 14, 2012 5:39 PM

To: Kidman, Timothy M.

Cc: Minnucci, Chris A.; Beddingfield, Erin N.
Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

Generally, by Wednesday afternoon would be good.

But, if you see any glaring errors in my summary, it'd be great to know about them by Monday afternoon. Also, it'd be

(b)(5) deliberative

Thanks!
Melissa

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
wrote: -----

To: Melissa Weitz/DC/USEPA/US@EPA

From: "Kidman, Timothy M."

<TIMOTHY.M.KIDMAN@saic.com>

Date: 06/14/2012 08:20PM

Cc: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>,
"Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>

Subject: RE: quick task for SAIC Re: Conference Call 2 PM
eastern time

Melissa, sure. **(b)(5) deliberative**

(b)(5) deliberative

When do you
need these items?

Tim

Tim Kidman | SAIC

Climate Change Analyst

Energy, Environment & Infrastructure Solutions

office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]

Sent: Thursday, June 14, 2012 4:34 PM

To: Kidman, Timothy M.

Cc: Minnucci, Chris A.; Beddingfield, Erin N.

Subject: RE: quick task for SAIC Re: Conference Call 2 PM eastern time

This was really useful Tim, thank you.

Would you be able to look at the liquids unloading estimates
in more detail? **(b)(5) deliberative**

(b)(5) deliberative

If I could get a quick review of the summary information I developed, that'd be great. It doesn't have to be detailed.

Thanks!
Melissa

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

-----"Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
wrote: -----
To: Melissa Weitz/DC/USEPA/US@EPA, "Minnucci, Chris A."
<CHRIS.A.MINNUCCI@saic.com>
From: "Kidman, Timothy M."
<TIMOTHY.M.KIDMAN@saic.com>
Date: 06/13/2012 10:20PM
Cc: "Beddingfield, Erin N."
<ERIN.N.BEDDINGFIELD@saic.com>
Subject: RE: quick task for SAIC Re: Conference Call 2 PM
eastern time
Hi Melissa,

I've taken a look at the report and your bullet points and put together a few comments in the attached document. The first comment relates to liquids unloading emissions-reducing technologies. The report makes the point that the EPA inventory separately quantifies emissions from this source and elsewhere the reductions, which makes it difficult to connect the two. However, I'm not sure that they are specifically attributing the difference to specific technologies that are not accounted for as much as the fact that assumptions about things like venting times are too high. This might be the intent of your bullet point.

In general, I also agree that there are some intentional inconsistencies and omissions to favor underestimation. However, in the bullet you provide I think there is some confusion about the count of completions – which APA/ANGA states is too low – and the well count used to calculate an -86% reduction from liquids unloading. The latter uses a much larger count of wells.

I hope this is helpful. Please let me know if you would like me to review your overall summary as well.

Tim

Tim Kidman | SAIC
Climate Change Analyst

Energy, Environment & Infrastructure Solutions
office: 626.440.8342 | mobile: 626.993.8872

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Wednesday, June 13, 2012 7:07 AM
To: Minnucci, Chris A.
Cc: Beddingfield, Erin N.; Kidman, Timothy M.
Subject: quick task for SAIC Re: Conference Call 2 PM eastern time

Hello,

API/ANGA recently released a report about national methane emissions from natural gas production. I've reviewed the report and cross-checked with EPA's inventory. I developed the summary attached to this email, and also the higher-level bullet points below.

Could SAIC take a quick look at the study and confirm that the bullet points below are accurate? I may ask for a more detailed review of the attached sheet later. It would be really useful to get the review of the bullet points by tomorrow AM. I think it is pretty straightforward and that the bullets are accurate, but no one else has looked in detail at the study and I just wanted to double check my work.

We can discuss at 2.

Thanks!
Melissa

- For many key data points in this study, API/ANGA's estimates are based on, or in line with, EPA estimates.
 - For emissions from hydraulically fractured well completions and recompletions, and many other sources, API/ANGA uses EPA's emissions factors.
 - The main difference between EPA's and API/ANGA's emissions totals was the data for emissions-reducing technologies for liquids unloading.

(b)(5) deliberative

(b)(5) deliberative

(See attached file: ANGA.API report.docx)

"Minnucci, Chris A." ---06/12/2012 04:53:37 PM---All,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA, "Beddingfield, Erin N." <ERIN.N.BEDDINGFIELD@saic.com>, "Kidman, Timothy M." <TIMOTHY.M.KIDMAN@saic.com>
Date: 06/12/2012 04:53 PM
Subject: Conference Call 2 PM eastern time

All,

I've scheduled the inventory conference call for 2 to 3 PM Wednesday, June 13. Please use (b)(6) privacy conference code (b)(6) privacy

talk to you tomorrow,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 4:15 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm available after 2 tomorrow and after 3 on Thursday. Will either day work for you/Tim?

Melissa

"Minnucci, Chris A." ---06/12/2012 03:41:10 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA

Date: 06/12/2012 03:41 PM
Subject: RE: TO 07

Melissa,

Is noontime tomorrow ok for you? I have some constraints in the afternoon, and want to be able to include Tim Kidman (on the west coast) on the call.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Tue 6/12/2012 2:56 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Let's have a call. It is probably not necessary to look at GRI for the level of detail we're looking for here.

Do you have time tomorrow to talk?

Melissa

"Minnucci, Chris A." ---06/12/2012 11:43:29 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/12/2012 11:43 AM
Subject: RE: TO 07

Melissa,

Tim, Erin and I have finished our review of the inventory, and at this point we have a question on what the best procedure would be from here. It is our understanding that many of the emission factors, and maybe some of the activity data, in the inventory are based on the 1996 GRI data source. Assuming this is true (please let me know if it isn't), then most of our questions are on the GRI data. This being the case, we were wondering whether it would be better to (1) have the conference call and ask our GRI data questions during the call, or (2) do our own review of the GRI data source to get answers to these questions. If the latter option makes more sense from EPA's standpoint, rather than all 3 of us doing the review I would have Tim do it (because he actually has had some experience looking at that document in his past job). Erin and I would give him our questions up front so he can focus on getting answers to those questions. I understand it is a big document so don't want to have 3 people doing independent reviews when one of us can

get the necessary answers more cost effectively.

Please let me know whether it would be best to proceed with a GRI review or directly to a call where an EPA person could address our GRI questions. Also if the latter, please let me know what would be some good times for you.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 4:57 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

I'm going to suggest that we keep the inventory and the memo call separate--I think you're going to have a lot of questions about the inventory when you start looking at it...I know I did!

The Subpart W piece is going to be key (and also a bit urgent), so it would be good to bring in from the start someone who worked on the W reporting requirements and get them familiar with the inventory.

The calculation spreadsheet for the GHG Inventory is attached below. Please go ahead and get started on step 1.

Let me know if you have questions. We may want to do more than one call on questions on the inventory, in case any big questions hold up your review.

(See attached file: NaturalGasSystems_1990-2010
30Mar2012.xlsx)

"Minnucci, Chris A." ---06/07/2012 04:50:03 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 04:50 PM
Subject: RE: TO 07

Melissa,

Here's my estimate of hours and costs. We are planning to go mainly with Tim Kidman and myself to do the work, but we will be calling on 2 of the other folks from the Subpart W team--Erin Beddingfield and Matt Cleaver--on an as needed basis when we have questions about specific sources that they worked on during our Subpart W review. Note that in this estimate I suggest

(b)(5) deliberative

(b)(5) deliberative

(b)(5) deliberative

Totals: **(b)(5) deliberative**

We will await your ok on this before proceeding with the work, or if you need more info or want to discuss this estimate further just let me know; I can be reached at 610-296-2028. I'll be here tomorrow morning but out in the afternoon--back in Monday AM.

Also, as it will come up quickly in Step 2, if you could send us the memo when you get the chance that would be great.

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 12:51 PM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Not sure yet of the schedule, but it will likely be pretty quick. We're

(b)(5) deliberative

possible to have the rest ready in some form by mid-July, that'd be great. But, I'll get back to you with more specifics on the schedule once we have a better sense of the timing on our plan to engage stakeholders on the inventory.

Melissa

"Minnucci, Chris A." ---06/07/2012 11:52:24 AM---Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. T

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/07/2012 11:52 AM
Subject: RE: TO 07

Thanks Melissa. Yes, I can get back to you with an estimate of hours and costs by step tomorrow. Then if you approve the estimate, we can get started immediately. Do you have a schedule for when this work should be completed?

thanks,
Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 6/7/2012 10:27 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

Hi Chris,

Thanks! The TD is drafted below. The workplan may change a bit as we move forward, but we'd like to get started as soon as possible on Step 1.

Would it be possible to get an estimate of hours/cost tomorrow?

We can set up a time to talk if you have questions.

Thanks!
Melissa

(b)(5) deliberative



(b)(5) deliberative



(b)(5) deliberative



(b)(5) deliberative

(b)(5) deliberative

Melissa M. Weitz
U.S. Environmental Protection Agency
Climate Change Division
(202) 343-9897
Weitz.Melissa@epa.gov

"Minnucci, Chris A." ---06/04/2012 09:52:51 AM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/04/2012 09:52 AM
Subject: RE: TO 07

Melissa,

One other important thing I forgot-- (b)(5) deliberative

(b)(5) deliberative

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Mon 6/4/2012 9:31 AM
To: Minnucci, Chris A.
Subject: RE: TO 07

This is great, thanks Chris!

I'll get back to you in the next day or two. Thanks so much.

Melissa

"Minnucci, Chris A." --06/02/2012 04:31:14 PM---Melissa,

From: "Minnucci, Chris A." <CHRIS.A.MINNUCCI@saic.com>
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/02/2012 04:31 PM
Subject: RE: TO 07

Melissa,

Yes, we have folks who are knowledgeable on that subject, having

(b)(5) deliberative



Team before looking further afield. Just let me know when you'd like to talk (or send me further details), and I'll work on finding the right people for the job.

Chris

From: Melissa Weitz [mailto:Weitz.Melissa@epamail.epa.gov]
Sent: Thu 5/31/2012 5:25 PM
To: Minnucci, Chris A.
Subject: TO 07

Hi Chris,

Quick question--is there anyone at SAIC with expertise on oil and gas GHG emissions estimates who we could access under TO 07? Please think about it and let me know, and I'll get in touch soon with more

details.

Thanks!

Melissa

Melissa M. Weitz

U.S. Environmental Protection Agency

Climate Change Division

(202) 343-9897

Weitz.Melissa@epa.gov [attachment "graycol.gif" deleted by
Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif"
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Melissa Weitz/DC/USEPA/US] [attachment "graycol.gif"
deleted by Melissa Weitz/DC/USEPA/US]

[attachment "API_ANGA report review.docx" removed by
Melissa Weitz/DC/USEPA/US]

=

=

updated word doc on stakeholder process

Melissa Weitz to: Bill Irving


06/25/2012 09:52 AM

History: This message has been replied to.

(b)(5) deliberative

inventory plan 2012 6.25.docx



Re: updated word doc on stakeholder process 
Bill Irving to: Melissa Weitz

06/25/2012 11:40 AM

Shifting things around a bit, and added more detail to the process.

It should be converted into slides - the draft agenda could be it's own slide. The rest can go on 1-2 slides, depending on how it fits.

(b)(5) deliberative

inventory plan 2012 6.25 (BI).docx

Chief - Climate Policy Branch,
Climate Change Division , USEPA
tel +1 202 343-9065 - mobile +1 202 341 3384

Melissa Weitz


From: Melissa Weitz/DC/USEPA/US To: Bill Irvi...

06/25/2012 09:52:56 AM

From: Melissa Weitz/DC/USEPA/US
To: Bill Irving/DC/USEPA/US@EPA
Date: 06/25/2012 09:52 AM
Subject: updated word doc on stakeholder process

[attachment "inventory plan 2012 6.25.docx" deleted by Bill Irving/DC/USEPA/US]



Re: Fw: updated word doc on stakeholder process 

Suzanne Kocchi to: Bill Irving

Cc: (b)(6) privacy - Melissa Weitz

06/25/2012 12:01 PM

History: This message has been replied to.

My comments in track change

(b)(5) deliberative

inventory plan 2012 6.25 (BI)_sk.docx

Bill Irving

Chief - Climate Policy Branch, Climate Change...

06/25/2012 11:56:59 AM

From: Bill Irving/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 06/25/2012 11:56 AM
Subject: Fw: updated word doc on stakeholder process

Chief - Climate Policy Branch,
Climate Change Division , USEPA
tel +1 202 343-9065 - mobile +1 202 341 3384

----- Forwarded by Bill Irving/DC/USEPA/US on 06/25/2012 11:57 AM -----

From: Bill Irving/DC/USEPA/US
To: (b)(6) privacy - Melissa Weitz
Date: 06/25/2012 11:50 AM
Subject: Fw: updated word doc on stakeholder process

Chief - Climate Policy Branch,
Climate Change Division , USEPA
tel +1 202 343-9065 - mobile +1 202 341 3384

----- Forwarded by Bill Irving/DC/USEPA/US on 06/25/2012 11:50 AM -----

From: Bill Irving/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA, Melissa Weitz/DC/USEPA/US@EPA
Date: 06/25/2012 11:44 AM
Subject: Fw: updated word doc on stakeholder process

Suzie - this will be converted into slides , but any overarching comments are most welcome.

----- Forwarded by Bill Irving/DC/USEPA/US on 06/25/2012 11:44 AM -----

From: Bill Irving/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/25/2012 11:40 AM
Subject: Re: updated word doc on stakeholder process

Shifting things around a bit, and added more detail to the process.

It should be converted into slides - the draft agenda could be it's own slide. The rest can go on 1-2 slides, depending on how it fits.

[attachment "inventory plan 2012 6.25 (BI).docx" deleted by Bill Irving/DC/USEPA/US]


Chief - Climate Policy Branch,
Climate Change Division , USEPA
tel +1 202 343-9065 - mobile +1 202 341 3384

Melissa Weitz

From: Melissa Weitz/DC/USEPA/US To: Bill Irvi...

06/25/2012 09:52:56 AM



Re: Fw: updated word doc on stakeholder process 
Suzanne Kocchi to: Bill Irving
Cc: (b)(6) privacy - Melissa Weitz, Melissa Weitz

06/25/2012 12:11 PM

(b)(5) deliberative

Bill Irving

Thanks. Changes look good. We'll need to consi...

06/25/2012 12:08:28 PM

From: Bill Irving/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Cc: (b)(6) privacy - Melissa Weitz, Melissa Weitz/DC/USEPA/US@EPA
Date: 06/25/2012 12:08 PM
Subject: Re: Fw: updated word doc on stakeholder process

Thanks. Changes look good.

(b)(5) deliberative

Chief - Climate Policy Branch,
Climate Change Division , USEPA
tel +1 202 343-9065 - mobile +1 202 341 3384

Suzanne Kocchi

My comments in track change

06/25/2012 12:01:57 PM

From: Suzanne Kocchi/DC/USEPA/US
To: Bill Irving/DC/USEPA/US@EPA
Cc: (b)(6) privacy - Melissa Weitz, Melissa Weitz/DC/USEPA/US@EPA
Date: 06/25/2012 12:01 PM
Subject: Re: Fw: updated word doc on stakeholder process

My comments in track change

[attachment "inventory plan 2012 6.25 (BI)_sk.docx" deleted by Bill Irving/DC/USEPA/US]

Bill Irving

Chief - Climate Policy Branch, Climate Change...

06/25/2012 11:56:59 AM

From: Bill Irving/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA
Date: 06/25/2012 11:56 AM
Subject: Fw: updated word doc on stakeholder process

Chief - Climate Policy Branch,
Climate Change Division , USEPA
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----- Forwarded by Bill Irving/DC/USEPA/US on 06/25/2012 11:57 AM -----

From: Bill Irving/DC/USEPA/US
To: (b)(6) privacy - Melissa Weitz
Date: 06/25/2012 11:50 AM
Subject: Fw: updated word doc on stakeholder process

Chief - Climate Policy Branch,
Climate Change Division , USEPA
tel +1 202 343-9065 - mobile +1 202 341 3384

----- Forwarded by Bill Irving/DC/USEPA/US on 06/25/2012 11:50 AM -----

From: Bill Irving/DC/USEPA/US
To: Suzanne Kocchi/DC/USEPA/US@EPA, Melissa Weitz/DC/USEPA/US@EPA
Date: 06/25/2012 11:44 AM
Subject: Fw: updated word doc on stakeholder process

Suzie - this will be converted into slides , but any overarching comments are most welcome.

----- Forwarded by Bill Irving/DC/USEPA/US on 06/25/2012 11:44 AM -----

From: Bill Irving/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/25/2012 11:40 AM
Subject: Re: updated word doc on stakeholder process

Shifting things around a bit, and added more detail to the process.

It should be converted into slides - the draft agenda could be it's own slide. The rest can go on 1-2 slides, depending on how it fits.

[attachment "inventory plan 2012 6.25 (BI).docx" deleted by Bill Irving/DC/USEPA/US]

Chief - Climate Policy Branch,
Climate Change Division , USEPA
tel +1 202 343-9065 - mobile +1 202 341 3384

Melissa Weitz

From: Melissa Weitz/DC/USEPA/US To: Bill Irvi...

06/25/2012 09:52:56 AM

From: Melissa Weitz/DC/USEPA/US
To: Bill Irving/DC/USEPA/US@EPA
Date: 06/25/2012 09:52 AM
Subject: updated word doc on stakeholder process

[attachment "inventory plan 2012 6.25.docx" deleted by Bill Irving/DC/USEPA/US]



Re: inventory updates originating in Subpart W analysis
Suzanne Waltzer to: Melissa Weitz

06/26/2012 09:17 AM

History:

This message has been replied to and forwarded.

Hi Melissa,

I believe all of the major updates were first published in the Subpart W TSD with the exception of tanks. Tanks was mentioned in the TSD as a major source based on available data but I believe the update to the emissions was first included in the 2011 inventory.

Page 24 and Appendix C provide the info on the new EFs and data introduced in the Subpart W TSD for comparison with the inventory updates. It looks like the liquids unloading, compressor updates, and of course the unconventional well estimates are consistent. If the

(b)(5) deliberative

you mention below referring to? Does that make sense? Hope its helpful.

http://www.epa.gov/climatechange/emissions/downloads10/Subpart-W_TSD.pdf

-----Melissa Weitz/DC/USEPA/US wrote: -----

To: Suzanne Waltzer/DC/USEPA/US@EPA

From: Melissa Weitz/DC/USEPA/US

Date: 06/25/2012 06:28PM

Subject: inventory updates originating in Subpart W analysis

Hi,

(b)(5) deliberative

Thanks!
Melissa

Re: inventory updates originating in Subpart W analysis 
Melissa Weitz to: Suzanne Waltzer

06/26/2012 09:45 AM

Thanks Suzie!

For some reason yesterday as I was looking for this I got it into my head that the MRR was published in 2006, and thought that 2009 therefore couldn't be the MRR. Which makes no sense at all.

Anyway, I'll update the presentation slide accordingly.

For tanks, it looks like there was an updated analysis for the reporting rule also? I had a hard time following that source in the TSD.

The U.S. GHG Inventory emissions estimates for the following sources were revised: gas well hydraulic fracture completion venting, gas well liquids unloading venting, and gas well workover venting following hydraulic fracture. Natural Gas STAR emission reductions reported by partners from these sources are higher than the current inventory emission estimates. As a result emissions from these sources are currently under-estimated in the inventory. The methodology used to revise these emissions estimates can be found in Appendix B. In addition, emissions from storage tanks vented and flared emissions are believed to be under estimated in the U.S. GHG Inventory. EPA independently estimated the storage tank emissions using publicly available data described in docket memo "Analysis of Tank Emissions" (EPA-HQOAR-2009-0923-0002). EPA's estimated emissions from onshore production storage tanks may be as high as 75 billion cubic feet (Bcf) as compared with the 12 Bcf estimate provided in the 2006 inventory. In addition, the threshold analysis does not account for several sources that are not represented in the U.S. GHG Inventory such as associated gas venting and flaring, well testing venting and flaring and gas well hydraulic fracture completion venting in tight sands, the latter because these wells are not included in state data (See Appendix B).

Suzanne Waltzer

Hi Melissa, I believe all of the major update...

06/26/2012 09:17:42 AM

From: Suzanne Waltzer/DC/USEPA/US
To: Melissa Weitz/DC/USEPA/US@EPA
Date: 06/26/2012 09:17 AM
Subject: Re: inventory updates originating in Subpart W analysis

Hi Melissa,

I believe all of the major updates were first published in the Subpart W TSD with the exception of tanks. Tanks was mentioned in the TSD as a major source based on available data but I believe the update to the emissions was first included in the 2011 inventory.

Page 24 and Appendix C provide the info on the new EFs and data introduced in the Subpart W TSD for comparison with the inventory updates. It looks like the liquids unloading, compressor updates, and of course the unconventional well estimates are consistent. (b)(5) deliberative

(b)(5) deliberative

Does that make sense? Hope its helpful.

http://www.epa.gov/climatechange/emissions/downloads10/Subpart-W_TSD.pdf

-----Melissa Weitz/DC/USEPA/US wrote: -----
To: Suzanne Waltzer/DC/USEPA/US@EPA
From: Melissa Weitz/DC/USEPA/US
Date: 06/25/2012 06:28PM
Subject: inventory updates originating in Subpart W analysis

Hi,

(b)(5) deliberative

Thanks!
Melissa